

AND UNUSUAL WEATHER PHENOMENA WITH LATE REPORTS AND CORRECTIONS





COVER:

An emergency worker examines the damage to a home caused by a tornado in Novi, Michigan on September 14. Photo courtesy: The Novi (Michigan) News.

CONTENTS

<u></u>	180
rm Folks	3
tstanding Storms of the Month	4
rm Data and Unusual Weather Phenomena	13
e Reports and/or Corrections	86
rm Summaries	88
Ference Notes and "F" Scale Definitions	90

STORM DATA

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The Storm Data and unusual Weather Phenomena Narratives and Hurricane/Tropical Storm summaries are prepared by the National Weather Service. Monthly and annual statistics and summaries of tornado and lightning events resulting in deaths, injuries, and damage are compiled by cooperative efforts between the National Climatic Data Center and the National Severe Storms Forecast Center.

STORM DATA contains all confirmed information on storms available to our staff at the time of publication. However, due to difficulties inherent in the collection of this type of data, it is not all-inclusive. Late reports and corrections are printed in each edition.

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The editors of STORM DATA solicit your help in acquiring photographs (prints or slides; black and white, or color), maps, clippings, etc. of significant or unusual weather events (past or present). These could be for use in the "Outstanding Storms of the Month" or "Et Cetera" sections of STORM DATA. We request our subscribers or other interested persons to mail such items to:

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Any such items received by the editors will be for use in STORM DATA only. Any other use will be with the permission of the owner of said items. Materials submitted will be returned if requested in the original submission.

"I certify that this is an official publication of the National Oceanic and Atmospheric Administration and is compiled from information received at the National Climatic Data Center, Asheville, North Carolina 28801."

Director

National Climatic Data Center

annet D Waden

STORM FOLKS . . .



Biographical Sketch
MICHAEL T. ECKERT

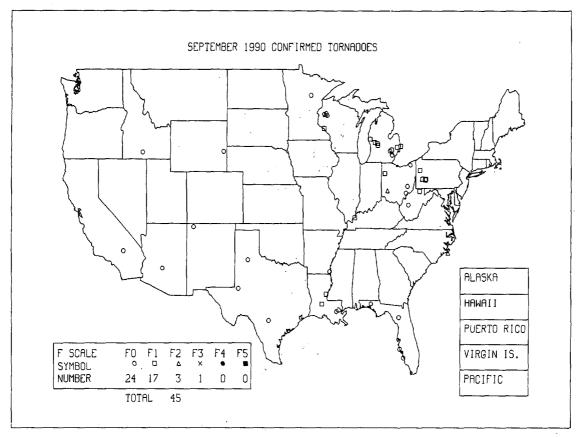
Mike received his Bachelor of Science Degree in Meteorology from the University of Oklahoma in May 1983. During his senior year he participated in the National Severe Storms Laboratory Tornado Chase program. This involved tornado chase activities with the TOtalbe Tornado Observatory, TOTO.

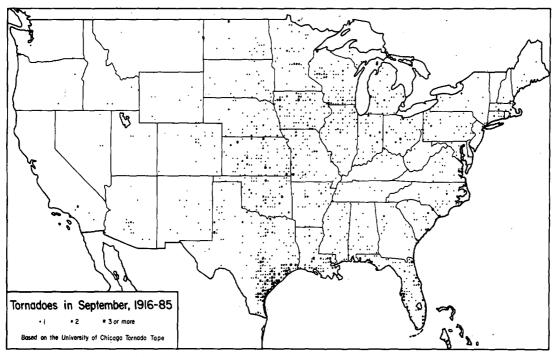
After graduation he was employed by Metracom, Inc. in Oklahoma City where he was an On-Air Meteorologist for OETA-TV and WKY Radio.

In April 1985, Mike joined the NWS at Toledo, Ohio as an Intern. While there he published two Eastern Regional Technical Attachments on severe weather. In September 1987 Mike was promoted to the WPM position at Cleveland, Ohio. Mike has automated the procedures for printing Storm Data and the Monthly Flood reports for Ohio.

Mike is married and has two girls. He enjoys fishing, camping, and bowling.

OUTSTANDING STORMS OF THE MONTH





1. PRECIPITATION AND TEMPERATURE ANOMALIES - MAY 1990

Table 1 lists the 96-year temperature and precipitation rankings for the climatically nine homogeneous regions outlined in Fig. 1. The Northwest, Southeast, and western Corn Belt regions endured very dry conditions during September. The Northwest and Southeast regions observed the 2nd and 3rd driest September respectively of the last 96 The western Corn Belt years. received generally less than 50% of the normal precipitation. wettest areas include the southern and central Rockies and High Plains, the Great Lakes region, and the eastern Ohio Valley. Alaska and Hawaii generally recorded normal to normal monthly much above precipitation. (Fig. 2 on the

TABLE 1. TEMPERATURE AND PRECIPITATION RANKINGS FOR SEPTEMBER 1990, BASED ON THE PERIOD 1895-1990.

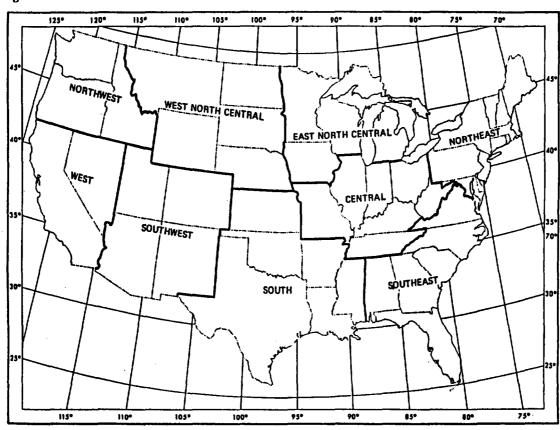
1 = DRIEST/COLDEST, 96 = WETTEST/HOTTEST.

REGION	PRECIPITATION	<u>TEMPERATURE</u>
Northeast East North Central Central Southeast West North Central South Southwest Northwest West	65 68 2	28 76 56 62 96 77 90 96
National	44 15	9 4 94

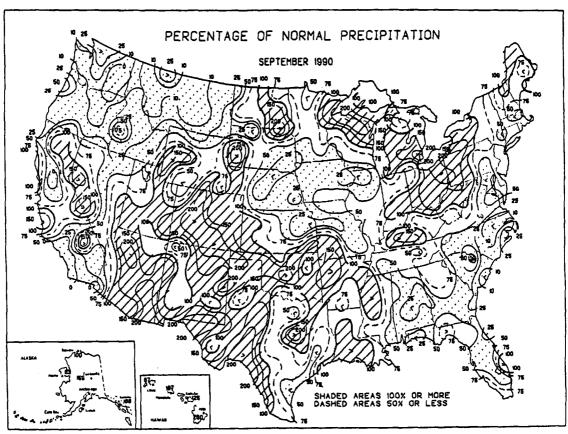
From National Climatic Data Center

following page). Temperatures for September averaged over the U.S. were well above the long-term mean. The only notable exceptions to above normal temperatures were recorded in the northeastern portion of the nation. Fig. 3 on page 7 depicts the departure of September 1990 average temperature from normal.

Fig. 1

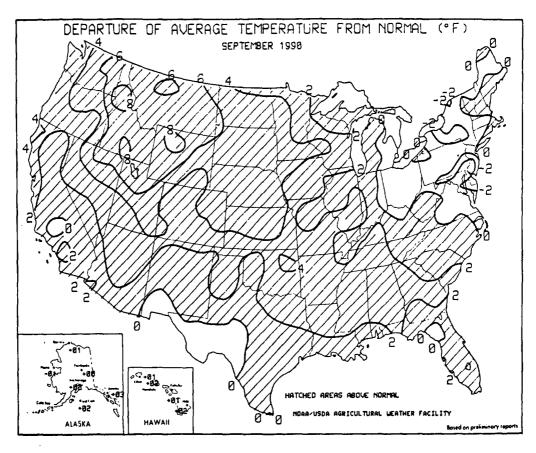


From National Climatic Data Center



From Weekly Climate Bulletin - October 1990

Fig. 3



From Weekly Weather and Crop Bulletin - October 10, 1990

2. SEVERE TORNADO IN NOVI, MICHIGAN ON SEPTEMBER 14, 1990

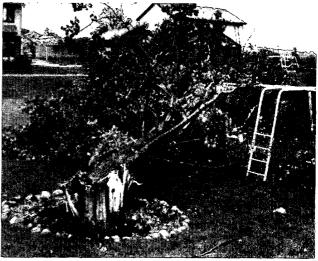
A tornado with an F3 (severe) classification cut a 24-mile swath through the town of Novi in Oakland County, Michigan on September 14th. An estimated \$2 million in damages resulted along its path with a maximum width of 90 yards. The damage was nearly continuous throughout its course as homes, businesses, and cars were badly damaged; many by falling trees. Direct damage caused by the tornado included windows blown out, walls of businesses and homes blown down, roofs lifted off residences and businesses, and broken windshields.



Tornado collapsed brick and frame wall of a residence in Novi. Note that the windows are unbroken. *Photo courtesy: Novi (Michigan) News.*



Severely damaged home in Novi after being hit by the F3 tornado. Debris, mostly from the home in center of photo, was scattered in a neighbor's backyard. Photo courtesy: Bryan Mitchell, Novi (Michigan) News.



A tree toppled by the tornado in Novi. The roof of the home in upper-left of photo was severely damaged. *Photo courtesy: Bryan Mitchell, Novi (Michigan) News.*

3. SEVERE WEATHER IN MINNESOTA - SEPTEMBER 5-7, 1990

FLASH FLOODING OF SEPTEMBER 5TH AND 6TH

Strong thunderstorms dumped more than 9 inches of rain over sections of Carlton and St. Louis counties of Minnesota from late evening on the 5th through early morning on the 6th. The resulting flash flooding caused extensive damage to highways, streets, and roads. Several culverts were washed out under Trunk Highway 210, forcing the evacuation and closure of Jay Cook State Park. Large sections of this highway and Highway 23 in Fond Du Lac were washed out; some up to 25-feet long. The Minnesota Department of Transportation estimated damages to city, township, and state roads to exceed \$1 million.

Some evacuations were conducted due to the concern for dams in the area. The streets of Thompson filled with nearly 2 feet of water flowing over the city dam. One hundred people were evacuated from Jay Cooke State Park due to the threat of a possible dam failure.

The only injuries reported as resulting from this flooding were of two young Carlton boys. They were rescued after attempting to wade in the swift moving waters and being swept into a road culvert.



Engineers and a highway maintenance supervisor surveying flash flood damage to Highway 210 at Jay Cooke State Park. Reprinted with permission of the Duluth News-Tribune, Duluth, MN.



Portions of Highway 23 were washed out by the raging Mission Creek. Reprinted with permission of the Duluth News-Tribune, Duluth, MN.



Washed out section of Highway 23 in Fond Du Lac. Richard Randall, District Bridge Safety Inspector, checks undermining of culvert footings. Reprinted with permission of the Duluth News-Tribune, Duluth, MN.



Teri Hackensmith and her brother, Joe Schrier, remove waterlogged belongings from his home on Highway 210. Reprinted permission Duluth News-Tribune, Duluth, MN.



Brooke Bong, Laurie Reed, and Stacy Hopp (left to right) survey the water from the front stoop of the Reed home in Carlton, MN. Reprinted with permission of the Duluth News-Tribune, Duluth, MN.



Driveway and garage foundation, owned by Mr. Ray Billings of Duluth, MN, suffered extensive flood/rain damagae on September 5-6. Reprinted with permission of the Duluth News-Tribune, Duluth, MN.

THUNDERSTORM WIND AND HAIL ON SEPTEMBER 7TH

Southwestern Minnesota experienced strong thunderstorm winds and large hail (up to 2.00 inches) on the morning of September 7th. Considerable damage was reported in some areas.

Willmar reported scattered downed trees due to the strong winds, but the major damage was caused by 2-inch hail. Two automobile dealers suffered damage to a total of 225 cars. Damages ranged from \$300 to \$2,000 per vehicle.

Trees were toppled and hail caused a swath of considerable crop damage from southeast of Willmar to Cosmos and later in Waseca County.

A barn was destroyed in Kingston by strong thunderstorm winds. Another barn was blown 20 feet off its foundation, collapsing the second floor onto the first.



Thunderstorms with heavy rain, hail, and wind gusting to 70 mph resulted in damage such as this tree in Willmar, MN. Photo credit: Bill Zimmer, West Central Tribune, Willmar, MN.

4. SOUTHERN CALIFORNIA FLASH FLOOD - SEPTEMBER 5, 1990

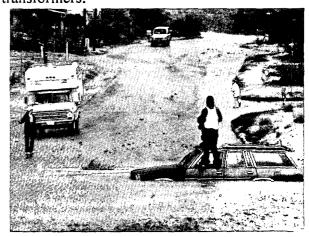
San Bernardino and Riverside counties experienced flash flooding caused by intense thunderstorms. Several motorists were forced to abandon their vehicles at flooded intersections; one was trapped in his car with water up to its



Hail in a planter produced by an intense thunderstorm in Joshua Tree. Photo credit: Jim Stewart, photographer, Hi-Desert Star (Yucca Valley, CA).

windshield until he was rescued.

Over 4,000 customers were without power in the area due to downed power lines and blown transformers.



Motorist stranded during flash flood in Joshua Tree. Photo credit: Jim Stewart, photographer, Hi-Desert Star (Yucca Valley, CA).

5. HOBBS, NEW MEXICO FLASH FLOOD - SEPTEMBER 16, 1990

Thunderstorms produced flash flooding in Hobbs, New Mexico. Streets, ditches, homes, and businesses were flooded. Many cars were abandoned in high water.



Two off-duty Hobbs police officers pedal past a convenience storm. The two stopped later to help stranded four-wheel vehicle occupants.



An unidentified girl in Hobbs, waist deep in water, makes her way to higher, drier ground.



Karon Raabe of Hobbs is helped by fire fighters after her vehicle stalled at a flooded intersection.

Photo credit for above three pictures: David Joles, photographer, Hobbs Daily News Sun.

SEPTEMBER 1990

		TIME		,	NO. PER:	OF SONS	ESTIN DAM/	ATED GE	
PLACE	DATE	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	K-1-W	OTTO	ожОо́шю−≻	CEOPN	CHARACTER OF STORM

A	T	A	B	A	B	Æ	A
М	L	М	D	М	м	YL.	М

Baldwin County 04 1600CST ? ? Thunderstorm Wind

> About 1 mile south of Point Clear a tree was uprooted and the tops were torn out of other trees. A portion of a pier and a sailing vessel were destroyed.

Mobile County

04 1610CST

Hail (0.75)

Dime-size hail fell at Grand Bay.

Mobile County

04 1630CST

0 ? Thunderstorm Wind (G70)

In Mobile thunderstorm winds were clocked at 70 mph. At the Alabama State Docks, the winds pushed a crane along the rails on which it travels and crashed it into a truck parked on the dock. The crane derailed and its boom struck the bridge of a ship. In the same vicinity, the roofs were blown off several buildings and power poles were blown down.

Montgomery County 09 1700CST

Thunderstorm Wind

In the northeastern section of Montgomery, several trees were blown down. One tree was blown onto a car. There was also roof damage in the same area.

ARIZONA

Pima County Tucson

03 1320MST

Thunderstorm Winds (G62)

Winds peaked at 71 mph at the airport. Hail about one-quarter-inch in diameter and 0.49 inch rain in 15 minutes was also recorded.

Yuma County East Yuma

03 1400MST

0 5 O

Thunderstorm Winds

Thunderstorms formed over the Mohawk Mountains and moved eastward, toward Dateland. Downburst winds were as high as 70 mph in the foothills area, damaging a shed and downing trees. Two power poles were blown down in the north Gila Valley. About 3 inches of rain fell in the foothills and 2.75 inches about 5 miles west of Wellton. Winds in Yuma caused near-zero visibility.

Yavapai County Cottonwood

03 1430MST

0 3 0 Thunderstorm Winds

Trees and power poles snapped, signs were blown down, and some roofs were damaged due to downburst winds.

Pinal County Near Apache Junction

03 1530MST

1 0 0 0 Lightning

While playing golf at the Gold Canyon Ranch, a man was struck by lightning. The man had six or seven exit wounds from the lightning strike. (M330)

Maricopa County Goodyear Phoenix

1620MST 03 1710MST

0.2

O 0

Thunderstorm Winds (G60) Tornado (F0)

A short-lived "gustnado" was reported by a spotter and local police, north of Union Hills Drive, between 7th Street and 7th Avenue. Movement was slowly northwesterly.

	T	TIME		-	NO.	OF SONS	ESTIN DAMA	ATED		SEPTEMBER 1990
PLACE	D-E	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH PATH (YARDS)	P F	-2-)		COCO	CHARACTER OF STORM	
ARIZONA Cont	'd									•
Glendale	03	1800MST	i		0	0	6	0	Thunderstorm V	Vinds
Mesa	03	1800MST	•		0	0	5	0	Flooding Thunderstorm V	Vinds
Casasina Carata	Wi sna	nds were e	stimated as winds blev	s high as v trees into	80 m lines	phin .Ası	Apach much a	ne Jun as 3.50	ue to high winds ction. Fourteen p inches of rain fell ere under 5 feet of	ower poles were in west Phoenix.
Coconino County Supai, Western Grand Canyon	03	1700MST	· .		0	1	6	3	Flash Flood	
	Ha flo	vasupai Ind od destroye	ian Reserv. d three ho	ation. Abomes and da	out 10 image	00 loca ed the	al resid local	dents v water	ater and debris, 14- were airlifted from and sewer systems s and livestock we	the village. The Electricity and
Pinal County Stanfield	04	1800MST	. •		0	0	?	4	Hail	
	Co	tton fields s	sustained d	amage from	n larg	ge hail	l .		•	
Cochise County 20 S Willcox	08	1650MST	•		0	0	0	0	Funnel Cloud	
	Αj	pilot reporte	ed the funn	el cloud.						
Santa Cruz County Nogales	13	1700MST	•		0	0	?	0	Flash Flood	
	Lat are		and evening	ng thunder	storm	s left	some 1	minor	flooding around the	e border-crossing
Pima County Tucson	13	2020MST	•		0	0	4	0	Thunderstorm V	Vinds (G51)
	vol eig cau	tage power hths-inch ha	poles wer al along wi	e toppled ith winds tl	on th nat gu	e city sted to	's sou o 59 m	th side ph. Ra	oved to the southwo be. Davis Monthan ainfall amounted to a manufacturing cor	AFB had three- 0.89 inch, which
							•			
Santa Cruz County Nogales	14	1800MST	•		0	0	0	0	Flash Flood	
Santa Cruz County Nogales		1800MST		orted street	_	_	-	_	Flash Flood	
	The		Office repo	orted street	_	_	-	_	Flash Flood Thunderstorm W	

There were numerous reports of downed power lines. On the southwestern side of town, power was lost for more than an hour. In addition, there was an unconfirmed report of a funnel cloud on the south side. Rain totals ranged from 0.23 to 1.03 inches and caused some minor flooding and temporary closure of several intersections.

Maricopa County Mesa, Gilbert, Chandler Thunderstorm Winds Hail (1.75) Lightning Flash Flooding 2130MST 2150MST 2140MST 2315MST 0000 0 0 1 0

SEPTEMBER 1990 ESTIMATED DAMAGE NO. OF PERSONS TIME LENGTH OF PATH WIDTH OF PATH LOCAL CHARACTER OF STORM MACKE ROOMOO STANDARD PLACE (YARDS) (MILES) 5

ARIZONA Cont	a							
	the wing A 2-mile	man was s s and crack stretch of	sted to be 50 sailed more struck by light ked the wind the Beeline overed some	ghtning at idshield o Highway	ph, too vards a Comp of a Bo was c	te the recross the cross the code of the cross	oof off ne foot tadium 27 air y the D	a portable building at Gilbert High ball field into a parking lot. A 22- and was hospitalized. Hail dented cargo plane over Apache Junction. epartment of Public Safety as water
Pima County Tucson	18 113	5MST		0	0	0	0	Hail (1.75)
	The Oro	Valley Fir	re Departm	ent report	ed gol	f ball-s	ize hai	1.
ARKANSAS	•							
Randolph County 6 SW Pocahontas	07 135	5CST		0	0	2	0	Thunderstorm Winds
	Thunder	storm wind	ls blew son	ne trees d	own al	ong Hi	ghway	62.
Fulton County Vidette	07 145	OCST		0	0	0	0	Hail (0.75)
Lawrence County 3 W Imboden Imboden		8CST 0CST		0	0	0	0	Hail (0.75) Thunderstorm Winds
	damaged	by falling	ls downed trees, as we l Highway	ere numer	ver lin ous fer	es, and ices. T	dama rees w	ged some roofs. Two homes were ere also blown down across sections
Carroll County 15 S Berryville	07 181	5CST		0	0	3	0	Thunderstorm Winds
	Thunders	storm wind	ls took the	siding of	f one v	vall of	a hous	e.
Chicot County 5 N Eudora		OCST- OCST (0.20 3	0 0	0	0	0	Tornado (F0)
	A small	tornado br	iefly touche	ed down	n oper	count	ry nor	h of Eudora.
E								

Faulkner County 09 2000CST 0 3 Thunderstorm Winds (G43) Conway

Thunderstorm winds blew down trees and damaged a house under construction. Desha County McGehee

19 1540CST 0 5 0 Thunderstorm Winds (G50)

A thunderstorm downburst damaged the roofs of two businesses, downed some trees, and caused minor damage to the roofs of a few homes. A department store and a factory both lost part of their roofs. Shopping carts also damaged some cars as they flew across the parking lot. The factory suffered water damage as a result of the damaged roof.

		TIME			NO. PERS	OF SONS	ESTIM DAMA	AIED GE		SEPTEMBER 1990
PLACE	D-60-LL	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	صسدسه	חשמכרב⊢		CECOEN	CHARACTER OF STORM	
ARKANSAS Con	t'd									
Faulkner County Conway	20	1330CST			0	0	5	0	Thunderstorm V	Vinds (G50)
	oak An	evere thundeding, power own receive trees. Classofficial with years.	erstorm roa r outages, d the most sses at a ju h the local	ared throug and damag damage. nior high s power cor	h Cor ed ho Nume school npany	nway, mes fi erous l were desc	causing rom fa nomes cance ribed	g a mu lling to were o led the it as th	altitude of problem rees. The northern lamaged as the wir e next day due to l e worst storm to h	s, including street and central areas ads flattened large ack of electricity. ait their system in
Phillips County West Helena	21	1832CST							Funnel Cloud	
CALIFORNIA, N	lorti	nem								
San Luis Obispo County	21	1625PDT			0	0	0	5	Hail (0.50) Heavy Rain	
	Thu	inderstorms	produced	hail and h	eavy :	rains v	with d	amage	primarily to the g	rape crop.
Santa Barbara County 17 W New Cuyama	21	1900PDT- 2100PDT			0	0		0	Flash Flood	·
Santa Barbara County		2100PD1				U	4	U	riasa riood	
17 W New Cuyama San Luis Obispo	22	1630PDT- 1830PDT	•		0	1	4	0	Flash Flood	
County Eastern Half	22	1700PDT			0	0	4	0	Flash Flood	
	Hea	vy rains on								
	and	inty. On the	e 21st, 2.1 d the high	4 inches fe	ll in a	two-l	nour p	eriod v	n of Highway 166 with another inch o in Luis Obispo Cou	n the 22nd. Mud
Monterey County King City	and	inty. On the debris close	e 21st, 2.1 d the high	4 inches fe	ll in a	two-l	nour p	eriod v	vith another inch o	n the 22nd. Mud
Monterey County King City Santa Cruz County	and clos	inty. On the debris close ed on the 2	e 21st, 2.1 d the high	4 inches fe	ll in a while	two-l High	nour po way 5	eriod v 8 in Sa	vith another inch o n Luis Obispo Cou	n the 22nd. Mud
King City	and closs 22 22 As a	nity. On the debris close ed on the 2 1800PDT 2000PDT the area of (e 21st, 2.1ed the high 2nd.	4 inches fe way twice, rms moved	ll in a while 0 north	two-le High	our poliway 5 3 3 , injur	eriod v 8 in Sa 0 0 ies we	vith another inch on Luis Obispo Cou	n the 22nd. Mud inty was similarly
King City Santa Cruz County Siskiyou, Tehama, and Shasta	22 22 As City	nity. On the debris close ed on the 2 1800PDT 2000PDT the area of the with lights	e 21st, 2.1ed the high 2nd.	4 inches fe way twice, rms moved	O O north	3 0 nward	3 3 , injur	eriod v 8 in Sa 0 0 ies we house	vith another inch on Luis Obispo Cou Flash Flood Lightning re reported in a train Santa Cruz Cou	n the 22nd. Mud inty was similarly aller park in King inty.
King City Santa Cruz County Siskiyou, Tehama,	22 22 As City 23 Para	1800PDT the area of the with lights	e 21st, 2.1sd the high 2nd. hunderstoning dama	4 inches fe way twice, rms moved ge later in	O O north the e	3 0 nward vening	3 3 injurg to a	o 0 0 ies we house	vith another inch on Luis Obispo Cou Flash Flood Lightning re reported in a tra	n the 22nd. Mud inty was similarly was similarly with the control of the control

Hail caused damage to the grape and walnut crops.

	γ	<u></u>			NO.	OF	FSTI	MATED	<u></u>	SEPTEMBER	: 1990
		TIME	. ENATH		PER	SONS	₩	MATED AGE	}		
PLACE	DAG	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	Comp. 1.	OTTOOC - 25-		OROPN	CHARACTER OF Storm		
CALIFORNIA, I	Nort	hern Cont	'd								
Shasta County	25	1700PDT			0	2	4	0.	Urban Flooding	**	
•	Hea in a	avy thunders an auto acci	storms in t dent and d	he upper S lamage to	Sacrar a larg	nento e dep	Valley artmer	cause at store	ed urban flooding, le e.	eading to in	juries
CALIFORNIA, S	Sout	hern						•			
San Bernardino County									* 1		1
Big Bear Lake	02	1230PST			0	9	?	0	Lightning Hail (?)		
	Nir	ne campers v	were struck	k by lightr	ning v	vhile	taking	shelte	r from an intense h	ail storm.	
San Bernardino County Yucca Valley Joshua Tree Riverside County Banning Beaumont	05	Afternoon Evening	-		0	1	6	0	Flash Flood		÷
	fore cus roa	ced to aband tomers were ds and high which was	fon their of without p ways were immersed	ears in inter cower in the heavily d	ersecti ne are amag	ions f a due ed. I ts wir	looded to dov n Yuco dshiel	by an wned l ca Val	flooded and severa intense thundersto ines and blown tran ley, one motorist w Banning, flooding for inutes. Flooding v	rm. Over of sformers. I as trapped in ollowed a vi	4,000 Many in his iolent
San Bernardino County											
Daggett	29	Afternoon	?	?	0	0	0	0	Tornado (F0)		
	An mo	observer a vement is u	t Daggett nknown.	Airport 1	eport	ed a	tornad	lo had	touched down br	iefly. Size	e and
COLORADO							٠				
Jefferson County Kittridge	01	1738MST			0	0	0	0	Hail		
ū	mil	es southwes	t of Denve	r. As muc	h as a	ı half	inch (().50) o	foothills community of rain fell in Kittrid nd stream flooding.	ge from the	e, 18 same
Morgan County 2 W Fort Morgan	01	1810MST	•		0	0	0	0	Hail (1.00)		

COLOKADO

2 W Fort Morgan 01 1810MST

Hail (1.00)

Routt County Near Steamboat Springs

01 1855MST

1 0 0 Lightning 1

A Colorado man, 48, bow hunting in the mountains near Steamboat Springs was killed and his companion, 34, was seriously injured when they were struck by lightning. The older man died instantly according to the Routt County Coroner, while his partner suffered injuries to his legs. (M48?)

SEPTEMBER 1990 NO. OF PERSONS ESTIMATED DAMAGE TIME LENGTH OF PATH WIDTH OF PATH LOCAL CHARACTER OF STORM PLACE STANDARD (MILES) (YARDS) COLORADO Cont'd Jefferson County Arvada 01 2048MST O 0 Heavy Rain A late evening thunderstorm dropped pea- to marble-size hail and heavy rain for several minutes on the western side of Arvada near the intersection of Ward Road and 65th Avenue. Minor street and small stream flooding was reported in the area. Garfield County Near Rifle Gap 04 1900MST 0 Lightning Heavy Rain Lightning from a passing thunderstorm knocked out power for five hours to about 20 households above Rifle Gap, 7 miles north of the town of Rifle. The same storm deluged the sparsely vegetated mountainous terrain around Rifle Gap causing a large rock and mud slide, which resulted in the closure of a stretch of Colorado Highway 325 near the Rifle Falls Fish Hatchery, 11 miles northeast of Rifle. **Kiowa County** 17 1545MST 0 0 0 Haswell Hail (1.75) Heavy Rain Thunderstorm Wind Golf ball-size hail was reported by a storm spotter at 1545 MST in the town of Haswell (35 miles northeast of La Junta). The large hail, heavy rain (2.50 inches in less than an hour), and strong thunderstorm wind gusts were blamed for a number of downed tree limbs in Haswell. Minor street flooding was also reported. street flooding was also reported. **Denver County** 18 1630MST 0 Funnel Cloud Heavy Rain Denver A slow-moving thunderstorm over southwestern Denver spawned an ominous-looking funnel cloud over the intersection of south Sheridan Boulevard and U.S. Highway 285 around 1630 MST. The funnel nearly touched down a few times before lifting back into a low-hanging rotating wall cloud. Pea- to marble-size hail and slightly more than three-quarters of an inch of rain fell over central and northeastern Denver as storms tracked northeast across the city. Numerous streets and underpasses became flooded on Denver's south side when heavy runoff backed up storm sewers. El Paso County Hail (1.00) Hail (1.00) Peyton 1505MST 0 Falcon 1510MST 0 0 1510MST 0 0 0 Thunderstorm Wind (G50) 16 N Colorado ? 1518MST 0 0 0 Springs Hail (2.00) CONNECTICUT Litchfield County 02 1858EST N. Canaan 0 Thunderstorm Wind Thunderstorm winds blew down trees in North Canaan. Litchfield County 15 0645EST 0 5 0 Cornwall Lightning

A fire started by lightning in an early-morning thunderstorm engulfed a house which was totally destroyed. The bolt of lightning likely struck a nearby tree and then jumped to the house. A 4-inch-deep trench was carved in the ground from the tree to the house.

SEPTEMBER 1990 NO. OF PERSONS ESTIMATED DAMAGE TIME LENGTH OF PATH WIDTH OF PATH LOCAL CHARACTER PLACE STANDARD STORM (MILES) (YARDS) **DELAWARE** None reported. **FLORIDA** Palm Beach County 4 SW West Palm 01 1016EST Beach Funnel Cloud A funnel cloud was sighted by air traffic control tower personnel southwest of Palm Beach International Airport. It lingered only briefly before dissipating. **Madison County** 2 Madison 01 1700EST Thunderstorm Wind (G56) Strong thunderstorm winds felled power lines, leaving all of Madison without power. Pinellas County Gulfport 01 1750EST Hail (0.75) Three-quarter-inch-size hail fell for a short time at Eckerd College and Gulfport with little reported damage. St. Petersburg 01 1830EST 0 Thunderstorm Winds (G52) Winds gusted to 60 mph. Monroe County 10 WSW Key West 02 1201EST 0 Waterspout A waterspout was observed offshore 10 miles from Key West. Lee County Sanibel Island 02 1415EST 20 Waterspout-Tomado (F0) A waterspout offshore crossed the Sanibel Island Causeway and moved onshore felling a large Australian pine. Sarasota County Casey Key 02 1550EST 0 Waterspout A waterspout formed over the bay, and continued west over the Gulf before dissipating Monroe County 3 NW Key West 02 1603EST Waterspout A waterspout was sighted 3 miles northwest of Key West but dissipated rapidly. **Duval County** 18 SE Mayport 05 1055EST Waterspout A short-lived waterspout was observed 18 miles southeast of Mayport. Palm Beach County 4 E Lake Worth 05 1530EST Waterspout A waterspout was sighted 4 miles off Lake Worth Beach.

A waterspout was reported 4 miles southeast of Bahia Honda Key.

Waterspout

Monroe County Bahia Honda Key

05 1756EST

SEPTEMBER 1990 ESTIMATED DAMAGE NO OF PERSONS TIME LENGTH OF PATH LOCAL WIDTH CHARACTER OF STORM PATH **PLACE** STANDARD Ė Ē (MILES) (YARDS) FLORIDA Cont'd Volusia County 4 E Daytona Beach 06 0720EST 0 0 Waterspouts A series of waterspouts were observed east of Daytona Beach in the ocean by both surface observers and pilots from about 0715 to 0800 EST. The waterspouts moved west onto the beach and then dissipated. Monroe County 06 1225EST 0 3 SW Key West Waterspout A waterspout was observed 3 miles southwest of the Key West Airport. Monroe County 06 1317EST 0 2 S Key West Waterspout A waterspout was seen 2 miles south of Key West. Monroe County 0 0 Sugarloaf Key 06 1655EST Waterspout A waterspout was observed 1 mile west of Sugarloaf Airport. Monroe County 07 0650EST 0 Waterspout Plantation Key A waterspout moved west from the ocean across Plantation Key and U.S. Highway 1 then out into Florida Bay. Washington County 15 S Chipley 09 1505EST 0 Hail (0.75) Three-quarter-inch-size hail fell for a few minutes in a rural area south of Chipley. Washington County 09 1545EST 2 Thunderstorm Wind Vernon Thunderstorm winds uprooted trees and blew down power lines. Columbia County 09 1630EST 0 0 2 0 Thunderstorm Wind Lake City Downburst winds from heavy thunderstorms led to downed trees, power lines, and power outages. Leon County 0 2 Tallahasseé 10 1625EST 0 0 Hail (0.75) Thunderstorm Wind Large hail and wind gusts to 55 mph broke glass and damaged trees and power lines. Columbia County 11 1455EST 2 0 Lake City Thunderstorm Wind Strong thunderstorm winds overturned several mobile homes, damaged roofs, and uprooted trees. Walton County **DeFuniak Springs** 11 1500EST Short 0 2 0 Tornado (F0) A small tornado ripped off a section of a church roof 8 feet by 10 feet. Sarasota County

A small tornado damaged several mobile homes and roofs.

0

0

2

Thunderstorm Wind (G52)

11 1525EST

Venice

Short

<u></u>		<u> </u>	 	Τ	NO	OF	ESTIL	AATED	SEPTEMBER 1990
		TIME			PER	SONS	ESTIN DAMA		
PLACE	DAO-E	LOCAL STANDARD	LENGTH OF PATH (MILES)	PATH (YARDS)	Ontro	S J DOCUE		CACOEN	CHARACTER OF STORM
FLORIDA Cont'e	d								
Leon County 5 E Tallahassee	11	1558EST			0	0	3	1 .	Thunderstorm Wind (G52)
	A s mpl	evere thund h and marb	erstorm m le-size hail	oved throu were repo	gh a i	northe by an	astern off-du	Tallaha ity Nat	assee subdivision. Wind gusts to 60 ional Weather Service employee.
Leon County Tallahassee	11	1632EST			0	0	4	1	Thunderstorm Wind (G72) Hail (0.75)
·	Win betwout	nd gusts to ween 1633 a . Some roo	83 mph s and 1642 F of damage	were recor EST. Trees was also n	ded as and oted.	at the powe	Tallal r lines	nassee were d	Regional Airport. Large hail fell owned and several windows broken
Lee County Sanibel Island	13	1415EST		• .	0	0	0	0	Tornado (F0)
	A t	ornado brie	fly touche	d down.					
Lee County Sanibel Island	13	1445EST			0	0	0	0	Tomado (F0)
	A to	ornado brie	fly touche	d down.					•
Brevard County Merritt Island	13	1825EST			0	0	0	0	Waterspout
	Αv	waterspout v	was observ	ed offshor	e Coo	coa Be	each.		
Franklin County 35 NE	,								
Apalachicola	16	1525EST			0	0	1	0	Thunderstorm Wind
	Stro nor	ong thunde theastern Fr	rstorm wi ranklin Co	nd gusts unty.	down	ed se	everal	large	trees near a clay pit in extreme
Leon County Tallahassee	16	1525EST			0	0	1	0	Hail (0.75)
		ge hail and ver lines.	thunderst	orm wind	gusts	to 5:	5 mph	damag	ed trees and roofs and blew down
Brevard County Satellite Beach	16	1530EST			1	1	0	0	Lightning
		htning struc 220)	k two men	fishing in	the si	urf jus	st off th	ne beacl	h, killing one and injuring the other.
Palm Beach County West Palm Beach	19	0450EST			0	0	2	0	Thunderstorm Wind Lightning
	Lig Cou	htning strik unty Fire R	es from prescue Serv	e-dawn thu	nders ousing	storms ess tel	dama; ephone	ged the e syster	computer system at the Palm Beach m. Wind gusts uprooted trees.
Monroe County 5 W Key West	21	1014EST	•		0	0	0	0	Waterspout
	Αv	vaterspout v	vas observ	ed offshor	e froi	m the	Key V	Vest Ai	rport.
Broward County Coral Park	22	1530EST			0	0	2	0	Lightning

A lightning strike caused a fire which destroyed a house.

	т		r		T	~				- SEPIEMBER	1990
		TIME	1		PER	OF SONS	ESIT	MATED AGE			
PLACE	DA	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	משבי האט	-2-3Deano	4-can-00000	COCO	CHARACTER OF STORM		
FLORIDA Cont'	d										
Monroe County 5 E Key West	23	1147EST			0	. 0	0	0	Waterspout		
and the second second	À۷	waterspout v	was observ	ed off the	Boca	Chita	a Nava	ıl Air S	tation.		
Palm Beach County West Palm Beach	27	1025EST			0	0	0	0	Waterspout		
•	A	waterspout v	was sighted	by the C	oast (Guard	east o	of Jonat	han Dickinson Sta	te Park.	
Palm Beach County Jupiter Inlet	28	0630EST			0	0	0	0	Waterspout		
	A١	waterspout v	was observ	ed off Jup	iter I	nlet ir	north	ern Pa	lm Beach County.		
Volusia County Ormond Beach	28	1220EST		•	0	0	0	0	Waterspout		
	A	small waters	spout was	observed e	ast o	f Orm	ond B	each.			
Alachua County Newberry	28		•			. 0	0	0	Tornado (F0)		
	ΑŢ	pilot reporte	ed a small	tornado to	uchec	dow	n brief	fly with	no damage.		
Santa Rosa County 1 SE Bagdad	28	1408EST			0	0	0	0	Thunderstorm V Hail (0.75)	/ind	
	Sev	eral trees w	ere downe	d by thun	dersto	orm w	inds.	Large	hail was also repor	rted.	
Monroe County Long Key	28				0	. 0	0	0	Waterspout		
	A s	small waters	spout was	observed e	ast of	f Long	g Key.				
Monroe County Saddlebunch Keys	30	0640EST			0	0	0	0	Waterspout		
	A١	waterspout v	was observ	ed near the	e Sad	dlebu	nch Ke	eys.			
Monroe County Sombrero Key	30	0649EST			0	0	0	0	Waterspout		
	Αv	waterspout v	was noted	2 miles so	uth o	f Som	brero	Key.			
Monroe County Tavernier	30	0856EST			0	0	0	0	Waterspout		
	A١	waterspout v	was observ	ed 5 miles	sout	heast	of Tav	ernier.			
Pinellas County Indian Rocks	30	1820EST			0	0	0	0	Waterspouts		
	Sev	eral watersp	pouts were	observed	5 t o	20 mi	les off	f Indian	Rocks Beach.		
GEORGIA		•									
Clinch County 12 NE Fargo	01	Evening		,	0	0	?	?	Lightning		

SEPTEMBER 1990 NO. OF PERSONS ESTIMATED DAMAGE TIME LENGTH OF PATH WIDTH OF PATH LOCAL CHARACTER STANDARD PLACE STORM (MILES) (YARDS) GEORGIA Cont'd Ware County 10 NNE Fargo Lightning 01 Evening Lightning started a wildfire on the Okefenokee Wildlife Refuge that burned many acres of refuge land in Clinch County and in Ware County west of Stephen Foster State Park. By October 5th, 1990, over 13,000 acres had been burned as the fire continued. Lumpkin County 05 1830EST 0 3 ? 0 Dahlonega Thunderstorm Wind Many trees were uprooted or snapped by thunderstorm winds at a campground site; one van was damaged. Scattered power lines were downed around Dahlonega. Coweta County ? 5 E Newnan 1540EST 0 0 ? Hail (0.75) Monroe County Southern Monroe Hail (0.75) Small Hail County 1600EST ? ? 0 0 4 ? Smarr 08 1600EST Thunderstorm Wind Numerous trees were broken or uprooted around Smarr and over southern Monroe County. Several homes at Smarr had damaged roofs after trees fell on them. Spalding County Eastern Spalding 1815EST 0 ?? County 08 Thunderstorm Wind 1815EST 0 Lightning Numerous trees were blown down over eastern Spalding County, while several houses were struck by lightning. One house was damaged by a falling free. Power outages were widespread. **Sumter County** Americus 2200EST 0 Thunderstorm Wind 08 2200EST ż 08 Lightning Numerous trees were blown down around Americus. Scattered power outages resulted when lines were torn down by trees or damaged by lightning. One home's carport was damaged by a falling tree and many roads were blocked. The winds lifted a metal building over a fence and dropped it onto four parked cars. Lightning hit a home and damaged a bathroom. Whitfield County 2 NE Dalton 1430EST 0 0 3 ? Thunderstorm Wind 2 E Dalton 2 NE Dalton 0 -09 1430EST 0 ? Hail (0.88) Scattered trees were blown down around Dalton. **Dalton** 1930EST Thunderstorm Wind 09 2105EST Lightning 2200EST Cohutta Lightning Many trees were blown down, traffic lights were damaged, and scattered power outages resulted from thunderstorm winds around Dalton. Lightning caused damage to the electrical systems of two adjacent homes. Lightning struck the main electrical line for Cohutta and left the residents without power.

Lightning

Thunderstorm Wind Thunderstorm Wind

Murray County Chatsworth

1 S Chatsworth

SEPTEMBER 1990 NO. OF PERSONS ESTIMATED DAMAGE TIME WIDTH OF PATH LOCAL LENGTH CHARACTER PĂTH **PLACE** STANDARD STORM (MILES) (YARDS)

GEORGIA Cont'd

Lightning struck several of the main power lines at Chatsworth. Two trees were downed at a school in Chatsworth. Winds ripped the roof off a textile building just south of Chatsworth. Damages were estimated near \$46,000.

Fannin County Eastern Fannin County	10	0015EST	0	0	?	?	Thunderstorm Wind
	Sca	ttered trees and power lines were	dow	med.	Severa	l count	ty roads were blocked.
Cobb County Smyrna	10	0330EST	0	0	?	?	Hail (0.75)
Fulton County Northern Fulton County	10	0550EST	0	0	3	?	Thunderstorm Wind
	A f	ew trees were blown down by st	rong	winds	and bl	ocked	the roads.
Twiggs County Dry Branch	10	1355EST	0	0	?	?	Hail (0.75)
Houston County 8 S Warner Robins Warner Robins	10 10	1430EST 1430EST	0	0	?	?	Thunderstorm Wind Lightning

Thunderstorm winds tore down power lines, resulting in brief outages. Lightning struck a home and damaged its roof and side.

Peach County Byron

10 1430EST

5 ? 0

Thunderstorm Wind

Downburst winds toppled a billboard, snapped tree limbs, and flattened several sections of a fence at a camper dealership. Two travel trailers were damaged when the billboard fell upon them; two others were damaged by the winds. Losses at the dealership were estimated to be about \$50,000.

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Dougherty County Albany Albany

Albany

1435EST 10 1455EST 1520EST Ŏ

Thunderstorm Wind Lightning Thunderstorm Wind

Numerous large trees were uprooted and limbs were broken over the northern portion of Albany. Approximately 50,000 homes were left without electricity due to downed lines, and wind- and lightning-damaged transformers. Two vans were hit by limbs; one contained 13 uninjured children. Numerous signs and cars were also damaged by trees and limbs. Lightning set a tree on fire and caused considerable damage when the fire moved from the tree to a home. Near Darton College, several mature pecan trees in an orchard were destroyed by winds.

Fulton	County
Sandy	v Springs

Roswell

1615EST 10 1630EST 1630EST 10 1645**EST**

? 0 0 Ō 0

Hail (0.75) Thunderstorm Wind Lightning Thunderstorm Wind

Scattered trees were downed around Sandy Springs and Roswell. Many areas had street flooding. Lightning struck several homes in Sandy Springs.

Cherokee County 1 SE Canton

10 1630EST

? 0

? Hail (1.75)

Small hail developed north of Canton. Many power outages developed around the city due to lightning.

	Т			Γ	NQ.	OF SONS	ESTI	MATED AGE		SEPTEMBER 199	
PLACE	D LOCAL LENGTH STANDARD PATH (MILES)					SONS	P. CO.	GE CECOOLS	CHARACTER OF STORM		
GEORGIA Cont	'd										
Clayton County Forest Park Lake City	10 10	1715EST 1715EST			0	0	?	?	Hail (0.75) Thunderstorm V	Vind	
	At	il developed Lake City, Scattered	one large	tree and a	few	tree li	mbs w	ere bl	over other portion own down across (on County.	is of Forest Park Georgia Highwa	
Dougherty County Albany	10	1855EST			0	0	3	?	Lightning		
	Lig	htning struc	k through	the bedro	om w	indov/	v of a	home a	and set a room on	fire.	
Mitchell County Southeastern Mitchell County	11	1900EST		•	0	0	• ?	?	Thunderstorm V	Vind	
-	Sca	ttered large	tree limbs	were brol	ken o	ff by	the wi	nds. I	Brief power outage	s resulted.	
Pickens County 3 W Jasper Jasper	13	0838EST			0	0	3	?	Thunderstorm V	Vind	
	Thu pov dev	understorm ver outages reloped.	winds ripj developed	ped a porti around Jas	ion o sper v	f a bu vhen t	ilding rees ar	's roof nd line	f off just west of l s were blown down	asper. Scattere . Street floodin	
Cherokee County Woodstock	13	2100EST			0	0	3	?	Thunderstorm V	Vind	
	Many trees were blown down by the winds. Minor flooding developed over low-lying areas an roads.										
IDAHO		ı									
Twin Falls County Twin Falls 2 SW	03	1415MST	0.1	10	0	0	0	0	Tomado (F0)		
Bannock County Inkom 3 S	05	1230MST			0	0	0	0	Heavy Rain		
		hunderstorr om.	n dropped	1.25 inch	es of	rain i	n 25 r	ninutes	s on Rapid Creek	in the hills abov	
Boise County Elmore County	07	1400MST			0	0	0	5	Lightning		
	Bas	htning ignit sin Ski Area n-normal ho	which bu	rned for fo	our da	ıys. 🛚	These 1	ires w	st including two fir ere associated with	es near the Bogu a much warmer	

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Fifteen days with temperatures 100° or more during the summer is a new record. The old record was 11 days during the summer of 1960.

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Unusually Hot

Ada County Boise

Summer Season

			T	Luo	05	FOTTI	ATER		SEPTEMBER 1990
	TIME			PER	SONS	ESTIM DAMA	ĜE		
PLACE	D LOCAL STANDARD	LENGTH PATH (MILES)	WIDTH OF PATH (YARDS)	K-L-L	CHICACLE		CEOPN	CHARACTER OF STORM	·
IDAHO Cont'd				'-					
Ada County Boise	26 2130MS	Γ.		0	0	4	0	Heavy Rain	*
	Thunderstorm overpass at B Streets.	s with sma usiness Inte	ill hail and erstate 84;	l heav water	y rai was	ns left knee d	3 feet eep in	of water under the downtown Boise at	Orchard Street 17th and Main
ILLINOIS									· .
IL.Z001-015	07 1200CST	•		0	0	?	?	Heat	
	During the fir temperatures	st week of s were well i	September, nto the 90s	unus over	ual he most	at caus of Illi	ed scho	ools to reschedule ho rom September 1st th	urs. Afternoon frough the 7th.
Johnson County Near Goreville	07 Afternoo	n .		1	0	0.	0	Lightning	and the second
	on the porch	of a building ped to the	ig at the Re	efuge	Ranc	h near	Gorevi	k by lightning. He halle. Lightning structer, helping to bui	k a nearby tree
Hardin County 46 NE PAH	07 1430CST	3.0	50	0	. 0	4	?	Tornado (F1)	
	and 1500 CS	「. A rooft l a double-	op that had wide mobil	i beei	n cons	structed	over	outes 146 and 1 betwa a mobile home on II c was split in half.	llinois 146 was
Union County 32 NW PAH	07 1530CST	•		0	0	4	0	Thunderstorm Win	nd
	Trees were do	wned on p	ower lines	and l	nomes	by thu	inderst	form winds at Dongo	ola.
Alexander County McClure	07 1545CST	•		0	0	4	0	Thunderstorm Wi	nd
	The roof was of Cape Girar	blown off a deau, MO.	school bu	ilding	by th	unders	torm v	vinds in McClure, 8	miles northeast
Pulaski County 28 NW PAH	07 1600CST	•		0	0	4	0	Thunderstorm Wi	nd
	Thunderstorm were down at	winds blev Olmsted a	w a tree do	wn or out n	n High ural P	iway 5 ulaski	l in Pu County	ılaski. Numerous otl	her power lines
Wabash County Mt. Carmel	07 Afternoo	n ·		0	0	4	?	Thunderstorm Win	nd
	Thunderstorm	winds cau	sed scatter	ed da	mage	to tree:	s and I	nomes.	
White County Carmi	07 1820CST	•		0	0	?	?	Hail (0.88)	<u>.</u> e
Near Carmi	07 1839CST	•	7.	. 0	0	4	0	Thunderstorm Win	nd
	Thunderstorm house fires an	winds dow d exploded	ned power two oil ta	lines	and t	rees ne s.	ar Car	mi. Lightning starte	d at least seven

SEPTEMBER 1990

										- SEPTEMBER	1000
		TIME			NO.	OF SONS	ESTIN DAMA	ATED GE		J GET TEMBER	1770
PLACE	D A E	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	K	Omracc.z-	- ca ma0	CACOTO	CHARACTER OF STORM		
ILLINOIS Cont'o	i										٠,
Clay County 34 ENE SLO	28	1727CST			0	0	?	?	Hail (1.75)		
	Ha	il was repor	ted at Sail	or Springs							
Richland County 40 E SLO	28	1754CST	1. %		0	0	. ?	· ?	Hail (0.75)		
· ,	Hai	il was repor	ted at Nob	ole.				•			
INDIANA								•			
Boone County Thorntown	07	1132EST			0	0	?	?	Hail (1.00)		ř
Vanderburgh County Evansville	07	1600EST		:	0	0	?	?	Thunderstorm V	/inds (G48)	
	A١	wind gust to	58 mph v	vas reporte	d at	Evans	sville V	Veathe	r Service Office.		
Gibson County Patoka	07	1502EST			0	0	2	?	Thunderstorm W	/inds	
	07	1502EST			0	0	5	0	Lightning		
	Lig	htning struc	ck the Pato	ka Presby	teriar	Chu	rch cau	ising o	ver \$100,000 in da	ımage.	
Princeton	07	1505EST	a.	,	0	. 0	3	?	Hail (1.75) Thunderstorm W	Tim da	
Francisco	07	1520EST			0	0	2	?	Thunderstorm W		
	Thu Pri	understorm nceton.	winds upr	ooted and	tore	limb	s off t	rees.	Golf ball-size hail	was report	ed at
Pike County Dodge City Washington County Clark County	07 07 07	1537EST 1545EST 1614EST			0 0 0	0 0 0	? 0 0	? 0 0	Hail (1.00) Hail (1.75) Hail (2.50)		
Posey County Mt. Vernon St. Philip	07 07	1905EST 1912EST			0	0	4 3	?	Thunderstorm W		1.
		understorm re blown do			vned	sever	al telep	ohone 1	poles in Mt. Verno	on. Several	trees
Floyd County Clark County	07 07	2220EST 2235EST			0	0	0	0	Hail (1.00) Hail (1.25)		. /
Greene County	12	0358EST			0	0	?	?	Flash Flooding		
	Six	inches of v	vater cover	ed State R	oad :	54 jus	t west	of Blo	omfield.		
Marion County	12	1620EST			0	0	?	?	Flash Flooding		

Six inches of water covered the road at 56th Street and Georgetown Road.

SEPTEMBER 1990

NO. OF PERSONS ESTIMATED DAMAGE TIME LENGTH OF PATH WIDTH OF PATH LOCAL CHARACTER OF STORM PLACE **STANDARD** Ē (MILES) (YARDS) INDIANA Cont'd St. Joseph County 1101EST Thunderstorm Winds Thunderstorm Winds South Bend 000 Mishawaka Three Rivers 0 1110EST 1120EST Flash Flooding A large tree was blown down by thunderstorm winds at Western and Chicago Streets in South Bend. A utility pole and power lines were blown down by thunderstorm winds at Day and Fir Roads in Mishawaka. Concrete block walls of a 10,000-square-foot building under construction on North Main Street collapsed. The building was one-third complete. Streets and small streams were flooded at Three Rivers. Montgomery County Crawfordsville 14 1142EST Thunderstorm Winds Eight-inch-diameter tree limbs were blown down by thunderstorm winds. Wind gusts to 65 mph were reported at Crawfordsville. **Madison County** .5 E Anderson 14 1310EST ? Thunderstorm Winds Tree limbs and power lines were blown down. Thunderstorm Winds **Rush County** 14 1433EST Tree limbs of 4- to 10-inches were blown down. Decatur County 5 SW Greensburg 14 1435EST Thunderstorm Winds Trees were blown down, blocking State Roads 3 and 46. Wayne County Abington 14 1440EST Thunderstorm Winds Trees were blown down by thunderstorm winds. Clark County Floyd County 14 1535EST 5 2 Thunderstorm Winds Strong thunderstorm winds overturned a mobile home, damaged roofs on several houses, and knocked trees onto several houses and cars. Ripley County Milan Versailles ? 14 1514EST 0 0 Thunderstorm Winds Trees were blown down. Dearborn County Bright ? Moores Hill 14 1530EST Thunderstorm Winds Trees were blown down at Bright and power lines were down at Moores Hill. Allen County Fort Wayne Wells County 1650EST 0 0 Hail (0.75) Bluffton Travisville 1730EST 0 0 ? ? Hail (0.75) **Delaware County** 0 ? ? 22 1808EST 0 Hail (1.75) Muncie

STORM DATA AND UNUSUAL WEATHER PHENOMENA SEPTEMBER 1990 NO. OF PERSONS ESTIMATED DAMAGE TIME WIDTH OF PATH LOCAL LENGTH CHARACTER OF STORM PĂTH PLACE STANDARD E (MILES) (YARDS) INDIANA Cont'd Franklin County Brookville ? 22 1845EST 0 0 Hail (0.75) Vermillion County ? 28 1533EST 0 0 ? Hail (1.00) Cayuga **IOWA** Louisa County 0 02 0935CST 0 Lightning Wapello Thunderstorms moved over the Wapello area during the morning hours. Numerous lightning strikes damaged several homes in the city. Warren County 4 NE Indianola 1915CST 2 Thunderstorm Winds (G50+) A thunderstorm moved over Warren County. The storm collapsed, producing a downburst northeast of Indianola. Trees were blown down and windows were knocked out of the one house that was hit. Appanoose County 2 E Centerville 07 0452CST 5 0 O 0 Lightning Thunderstorms moved across Appanoose County during the early morning hours. Lightning struck a barn east of Centerville, setting it on fire and destroying it. Four Tennessee Walking Horses were killed in the blaze. **Buena Vista County** 07 1700CST 5 Newell 0 0 Hail (2.00) **Pocahontas County** 07 1720CST n 0 3 3 Thunderstorm Winds (G50+) Laurens A cold front set off a line of thunderstorms in northwestern and northern Iowa. Most were not severe, but did produce pea- to marble-size hail and winds of up to 50 mph. Large hail fell at Newell, causing some property damage and significant damage to crops in the area. High winds moved through the Laurens area, downing trees, and causing some minor damage. **Decatur County** 0315CST-Lamoni 80 3 0325CST 0 0 5 Hail (0.75) Thunderstorms developed over southern Iowa during the early morning hours. Most of the storms produced pea- to marble-size hail and gusty winds. One cell dropped dime-size hail on Lamoni for a ten minute period.

KANSAS

Sedgwick County Wichita 07 1525CST 0 0 3 0 Hail (2.00) Sedgwick County 0 0 3 0 Thunderstorm Wind (G57) Wichita 1526CST

Strong winds and large hail produced some damage on the northern and western side of Wichita.

SEPTEMBER 1990 EST IMATED DAMAGE NO OF PERSONS TIME LENGTH OF PATH WIDTH OF PATH LOCAL CHARACTER OF STORM PLACE **STANDARD** Ŭ (MILES) (YARDS) KANSAS Cont'd Cowley County 4 SE Winfield 0 10 1611CST 0 0 3 Hail (2.00) **Cowley County** 7 W Dexter 10 1615CST 0 0 Lightning Lightning struck an oil farm setting fire to three oil tanks. Damage was estimated at \$10,000. Cowley County 2 SW Arkansas City 3 10 1630CST Thunderstorm Wind (G52) Thunderstorm winds caused roof damage to a home southwest of Arkansas City. **Cowley County** 10 1635CST 0 3 0 Thunderstorm Wind (G55) 4 S Dexter Strong winds uprooted a large tree that blocked U.S. Highway 166. **Sumner County** Caldwell 10 1650CST 3 0 Thunderstorm Wind (G55) Several large trees and a number of power lines were blown down. **Barton County** Hosington Rice County 2.5 N Lyons 1358CST 3 0 Thunderstorm Wind (G55) 20 1440CST 0 0 3 0 Thunderstorm Wind (G52) 20 A severe thunderstorm developed in the Hosington area producing a strong wind gust that downed several power poles. The storm moved east-northeast into Rice County producing a 60 mph wind gust north of Lyons. KENTUCKY **Taylor County** 07 1541EST 0 0 0 Thunderstorm Wind Strong winds blew a 100- to 150-foot section of roof from a storage building in Campbellsville and several barns were also damaged. Wayne County 0 Thunderstorm Wind Monticello 07 1545EST Strong thunderstorm winds downed many trees and power lines. In addition, several roofs from homes and businesses were damaged. 0 0 **Oldham County** 1639EST O 0 Hail (1.00) 3 0 **Anderson County** 1656EST Thunderstorm Wind Strong winds blew down several trees and power lines throughout the county. **Taylor County** 1657EST n 0 0 0 Hail (1.00) Anderson County 1657EST 0 0 0 0

0

0

0

0

Hail (1.75)

Hail (0.88)

Alton

Greenville

Muhlenberg County

07

1608CST

SEPTEMBER 1990 ESTIMATED DAMAGE TIME LENGTH OF PATH LOCAL WIDTH OF PATH CROPS A-Compoon CHARACTER OF STORM PLACE STANDARD (MILES) (YARDS)

L	L	l	<u> </u>	<u> </u>	<u> </u>	.l	<u> </u>	L	
KENTUCKY Cor	nt'd								•
Muhlenburg County Central City		an gart				1.			
Beechmont Greenville	07	1614CST 1620CST	.		0	0	3	. 0	Thunderstorm Wind
	Thu	ınderstorm	winds upr	ooted num	erous	trees	across	s the co	ounty.
Woodford County Versailles Shelby County	07 07	1715EST 1720EST			0	0	0	0	Hail (1.75) Hail (1.75)
Daviess County	07	1700CST	<i>8</i> ×		0	0	4	0	Thunderstorm Wind
	Thu tree	understorm es destroyed	winds blev l a mobile	v down nu home as i	merou t fell.	ıs tree	s throu	ighout	western Daviess County. One of the
Anderson County Lawrenceburg	07	1806EST			0	0	0	0	Hail (1.75)
Breckinridge County	07	1725CST			0	0	3	0	Thunderstorm Wind
	Str	ong winds l	blew down	trees and	powe	er line	s arou	nd the	community of Hardinsburg.
Fodd County Elkton	07	1735CST	**		0	0	2	0	Thunderstorm Wind
•	Thu	understorm	winds ble	w down se	veral	trees.			
Morgan County	07	1950EST		1.5	0	0	4	0	Thunderstorm Wind Lightning
	Tw	o houses w	ere damag	ed; one by	high	wind	s and	the oth	er was struck by lightning.
lefferson County Louisville	07	2240EST			0	0	3	0	Thunderstorm Wind Hail (1.00)
	Eig the	hty mph wi	inds were i blown dov	reported by	y a tel	levisio	n mete	eorolog	gist. Several trees and power lines i
Meade County	11	1905EST	in the second	÷	0	. 0	3	4	Thunderstorm Wind Hail (1.75)
	Eig tob	hty mph wacco crops	inds dama throughou	aged sever t the coun	al ho	uses i	n Brar	ndenbu	rg and large hail destroyed sever
lefferson County Lousiville	14	1548EST			0	0	3	0	Thunderstorm Wind
g ·	Wi	nds in exce	ss of 60 m	iph blew d	own :	severa	l trees	and p	ower lines throughout the city.
Boone County Kenton County	29	1735EST			0	0	3	0	Thunderstorm Wind
	Stre	ong thunder	storm win	ds blew do	wn se	everal	trees a	ınd poy	wer lines across both of the counties

SEPTEMBER 1990

		TIME			NO. PER	OF SONS	EST IN	MATED AGE		ZEPIEMBER 1990
PLACE	DA E	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	K-LL	-2-)	~- camoox.	COCOEN	CHARACTER OF STORM	
LOUISIANA	•									
St. John the Baptist										
Parish 4 ENE LaPlace	02	1040CST	0.50	30	0	0	2	0	Waterspout- Tornado (F0)	
	A v	waterspout of s damaged,	ver Lake several tre	Pontchartra es were do	ain ap wnec	paren l, and	itly mo large	oved or tree lir	nshore for a short on the shapped.	distance. A boat
Washington Parish 5 W Franklinton	04	1800CST			0	0	3	0	Thunderstorm V	Vind
Tangipahoa Parish Amite	04	1815CST			0	0	4	0	Thunderstorm W	Vind
Orleans Parish Rigolets	04	1900CST			0	0	2	0	Thunderstorm W	Vind (G54)
St. Tammany Parish Slidell	04	1905CST			0	0	3	0	Thunderstorm W	Vind .
St. Bernard Parish Arabi	04	1915CST	•		0	0	4	0	Thunderstorm W	Vind
Orleans Parish Lakefront Airport (NEW)	04	1943CST			0	0	4	0	Thunderstorm W	Vind (G72)
Jefferson Parish 10 N Metairie	04	1958CST			0	0	0	0	Thunderstorm W	Vind (G61)
New Orleans Intl. Airport (MSY) St. Charles Parish	04	2004CST			0	0	4	0	Thunderstorm W	Vind (G50)
Hahnville	04	2009CST			0	0	4	0	Thunderstorm W	/ind
St. James Parish Grammercy	04	2025CST			0	0	4	0	Thunderstorm W	Vind
St. Mary Parish Patterson Even coling Parish	04	2154CST			0	0	3	0	Thunderstorm W	Vind (G61)
Evangeline Parish Basile Jefferson Davis	05	0200CST			0	0	3	0	Thunderstorm W	Vind
Parish Welsh	05	0245CST			0	0	3	0	Thunderstorm W	Vind
	sou hig sca pov	ssissippi and ithern Louis hest recorde ttered report	their adjactiana. With wind grant gr	cent coastal nd gusts oust was 82 ned trees and	wate f 60 mph nd lai	rs, int to 70 at L ge tre	ensifie mph akefro e limb	ed and r were r int Airpos, dan	outhern portions of noved rapidly west- ecorded at several port in New Orlea hage to permanent les. A falling tree	southwest across locations. The were signs, as well as
Rapides Parish Libuse	09	1439CST				0	0	0	Hail (1.00)	
Evangeline Parish Ville Platte	09	1445CST	0.30	30	0	0	3	0	Tornado (F1)	
Grant Parish Southeastern Portion	09	1530CST			0	0	2	0	Thunderstorm W	/ind
Concordia Parish Monterey	09	1640CST	0.30	30	0	0	2	0	Tornado (F1)	
·	afte line	ernoon. Aw	veak tornac onterey, ar	do touched other weal	dow	n near	Ville	Platte of	nd east-central Lou lamaging a mobile e crown of several	home and power
Lincoln Parish Ruston	10	1315CST			0	0	4	0	Lightning	
	Lig	htning struc	k a house,	igniting a	fire	which	n cause	ed \$30,	000 damage.	

	\Box				NO.	OF SONS	ESTIM DAMA	AIED		SEPTEMBER 1990
	Q	LOCAL	LENGTH	₩ТОТН	PER:	SONS				1
PLACE	Ē	STANDARD	PATH (MILES)	WIDTH OF PATH (YARDS)	Î L E D	OTTO C.Z.		CROPA	CHARACTER OF STORM	
MAINE	J	L		<u> </u>		ll				_
Cumberland County	02	1355EST- 1405EST			0	0	?	0	Hail (0.75) Thunderstorm V	Vinds
. '	dan wit firs	naging wind h the aid of t reports of	ls. An unu a westerly f severe w ill fell min	sually larg wind flove eather inclutes later a	e num v at th luded at the	nber o ne sur hail a ietpoi	f sever face, v and tre	e weath vhich k e-breal	ather in the form ner occurrences str ept sea breezes fro king winds in We . The jetport also	om forming. The estbrook. Three-
York County	02	1500EST			0	0	?	0	Hail (1.00) Thunderstorm V	Vinds
	Sev dan	ere storms naging gard	passed thens.	rough Lin	mingto	on dr	opping	g 1-inc	h hail, blowing	down trees, and
York County	02	1520EST			0	0	?	0	Hail (0.75) Thunderstorm V	Vinds
	A 1 Wa	thunderstorr terboro.	n dropped	large hail	(0.7	5-inch	ı) in S	outh H	Iollis and blew tre	ees down in East
Sagadahoc County	02	1550EST			0	0	?	0	Hail (0.75)	
	Dir	ne- to quart	er-size hai	l fell in th	e tow	ns of	Richm	ond an	d Bowdoin.	
Lincoln County	02	1550EST			0	0	?	0	Thunderstorm V	Vinds
	A t	hunderstorn	n with asse	ociated stro	ong w	ind b	rought	down	large branches in	Dresden.
Lincoln County	02	1616EST			0	0	?	0	Hail (0.75)	
	Lar	ge hail (0.7	5-inch) fe	ll in Edged	comb.					
Lincoln County	02	1635EST			0	0	?	0	Hail (1.00)	
	Αł	nail storm c	ontinued to	o march th	rough	Linc	oln Co	ounty a	s 1-inch hail fell i	n Damariscotta.
Lincoln County	02	1650EST			0	0	?	0	Hail (0.75)	
	The	ground wa	s covered	with hail	in Bo	othba	у.			
Somerset County	02	Afternoon	·		0	0	?	0	Lightning Thunderstorm V	Vinds
	A s	evere thund ftops were	erstorm ca struck at E	used powe Elias Wood	r outa work:	ges in	Anson Locu	n. Seve st Stree	eral trees were blo et in Madison.	wn down and two
Kennebec County	02	Afternoon	l		0	0	?	0	Thunderstorm V	Vinds
	Stree	ong thunder across a ro	storm wind ad where	ds brought it struck a	wires	down	n in Be down	nton. electric	In Clinton, winds cal wires.	toppled a 50-foot
Sagadahoc County	02	Afternoon			0	0	?	0	Lightning	
		hunderstorn eet in Bath.	n produced	lightning	which	struc	k a cot	tage in	Woolwich and a sl	ned on East Milan
Knox County	02	Afternoon	l		0	0	?	0	Lightning	
	Lig roo	htning struct f and forme	ck a house ed a hole.	on Mecha	nic St	treet i	n Rocl	dand w	which blew trim fr	om the top of the

SEPTEMBER 1990 ESTIMATED DAMAGE NO OF PERSONS TIME WIDTH OF PATH LENGTH OF PATH LOCAL CHARACTER OF STORM OTTO CL2 PLACE STANDARD (MILES) (YARDS) Ē MAINE Cont'd 0 0 5 0 Lightning **Penobscot County** 02 Afternoon A lightning storm burned a hole in the roof of a garage and burned the top portion of the First Congregational Church steeple in Lincoln causing \$10,000 damage. In East Corinth an electrical storm caused a structure fire on Route 2 and destroyed a riding stable. Estimated damage was \$75,000 to \$100,000. Washington County 02 Afternoon Lightning Lightning hit a utility pole transformer sending a fireball along the wires and into a grocery store. Hail (1.00) **Cumberland County** 02 1800EST One-inch-size hail fell at Sebago Lake Village while Standish reported 0.75-inch hail from the same storm. Hail (0.75) **Cumberland County** 02 1900EST Three-quarter-inch size hail fell from a thunderstorm in North Scarboro. York County Hail (1.75) Hail the size of golf balls (1.75-inch) fell from a severe thunderstorm in Old Orchard Beach. MARYLAND and D.C. Wicomico County 07 1615EST 0 0 0 Thunderstorm Winds Salisbury Winds gusted to 67 mph at a television station. Montgomery County 16 1523EST n 0 0 0 Thunderstorm Winds Damascus Hail (0.75) Strong winds downed a few trees at Damascus and in scattered areas elsewhere in the county. District of Columbia 16 1637EST 0 0 3 0 Thunderstorm Winds Winds were recorded at 61 mph in the northwestern part of the District. About 25 trees were reported downed. About 1,400 homes in the northwestern and northeastern parts of the District lost power. **MASSACHUSETTS** Middlesex County Chelmsford 15 0830EST 0 Lightning A bolt of lightning struck a house, blowing a hole in the roof, destroying the chimney, and causing extensive damage to the second floor. Several household appliances were ruined. **MICHIGAN** MIZ019-021-024-027-028-029-030-035

Urban Flooding

Southeastern Lower

0100EST

Michigan

<u></u>		<u> </u>	<u> </u>		NO.	OF	ECTIV	IATED		_ SEPTEMBER	1990	
		TIME			PER	SONS	ESTIN DAMA	GE				
PLACE	DA	LOCAL	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	K-LL-REO	CHIXOCL X	can to Care	CRODA	CHARACTER OF STORM			
					D	Ē	BY					
MICHIGAN Con	t'd			<u> </u>	•	•		-				
	dan dan of t suri	blem, but sinage was do naged by state of the country of the count	treet floods one to foun anding wat f dollars wo ommunities Park. An	ing caused dations of ter, 2- to 4 torth of dates. Some of observer n	hund many -feet mage f the ear H	reds of the deep was deevi	of hom lese ho in som lone to er rain	es to h mes. I e inters persor falls w	small stream floo ave basements floo Not only homes be sections. In total, all property in the ere, 5.98 inches a on County, report	oded. Signil it many cars several hun Detroit area it Ann Arbo	ficant were dreds and and	
Gratiot County St. Louis	06	1425EST			0	0	0	0	Thunderstorm V	Vind		
		eral large tes; some tre naged.	rees and nee trunks w	nany small ere up to 2	trees 2-feet	s were in dia	e rippe ameter.	ed out on the No b	of the ground or uildings were repo	broken near orted to have	their been	
Saginaw County St. Charles	06	1512EST			0 .	0	0	0	Thunderstorm V	Vind		
	A f	ew large tre	es were b	lown dowr	ı by s	trong	winds	١.				
Saginaw County I E Layton Corner	06	1517EST			0	0	0	0	Thunderstorm V	Vind		
	Sev	eral trees a	nd a few p	ower lines	were	blow	vn dow	'n.				
Genesee County Northwestern Genesee County Shiawassee County	06	1519EST	•		0	0	0	,0	Thunderstorm \	Wind (G52)		
Northeast Corner of County	06	1522EST			0	0	0	0	Hail (0.75)			
Genesee County E Flushing	06	1531EST			0	0	4	0	Thunderstorm V	Wind (G52)		
	Hangar doors were blown in and a sheet metal hangar was damaged.											
Genesee County Flushing Township	06	1543EST			0	0	3	0	Thunderstorm \	Vind		
•	Αt	oarn and tre	es were re	ported dov	vned	by str	ong w	inds.				
Shiawassee County Durand	06	1550EST			0	0	5	0	Lightning			
	Lig	htning struc	ck a home	and caused	d it to	burn	down			356	•	
Shiawassee County Durand	06	1555EST			0	0	4	0	Thunderstorm \	Vind		
	Lig	htning struc	ck a garage	e causing r	najor	dama	ige bef	ore fire	fighters could pu	it out the fire	e.	
Genesee County Clio	06	1600EST	•		0	0	5	0	Lightning			
	Lig a pe WE	htning struc ower outage YI/CBS an	ck a power that knocled Channel	substation ked out the 25, their	and c Flin affilia	aused t Nati ite.	the su onal W	bstation eather	n itself to catch on Service radio and	fire. This catelevision st	aused lation	
Genesee County Morris	06	1600EST			0	0	3	0	Thunderstorm \	Wind		

Telephone poles were snapped.

SEPTEMBER 1990

(1	NO	O.F	ESTI	MATED		SEPTEMBER 1990
		TIME			PER	SONS	DAM	MATED AGE		
PLACE	D40-E	STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	OMBOC.Z-	- (2011-)	CACOTO	CHARACTER OF STORM	
MICHIGAN Con	t'd									-
Genesee County 7 E Flint	06	1602EST		•	0	0	3	0	Thunderstorm V	vind .
	Аг	ailroad cros	sing gate	was blown	off a	at Dav	ison a	ınd Iris	h roads.	
Genesee County S 1/2 City of Flint	06	1610EST			0	0	0	0	Thunderstorm V	/ind
	Ma Stre		es and larg	ge tree lim	bs we	ere blo	own do	wn ne	ar the School for th	ne Deaf on Court
Genesee County NE corner of Flint	06	1615EST			0	0	5	0	Thunderstorm W	/ind
	Sev	eral mobile	homes we	ere overtur	ned i	n the	Richfi	eld Tra	iler Park.	
Oakland County near Oxford St. Clair County	06	1620EST			0	0	0	0	Hail (0.75)	
St. Clair County 22 N Mt. Clemens	06	1620EST- 1630EST	2.0	40	0	0	3	0	Tornado (F1)	
	Thi pov	s tornado ca ver lines do	aused dam wned.	age to a fe	w ho	mes a	and car	rs. Sev	veral trees were up	rooted and many
Oakland County 2 W Lake Orion	06	1629EST			0	0	4	0	Thunderstorm W	/ind (G61)
	Αc	itizen repor	ted two sr	nall boats	sunk	on He	eather	Lake.		
Lapeer County Berlin Township	06	1630EST			0	0	4	0	Lightning	
•	Lig ban	htning struc n but it was	k a barn o saved.	n Almont	Road	and b	urned	it to th	e ground. There w	as a horse in the
Genesee County 2 W Montrose	06	1631EST			0	0.	4	0	Thunderstorm W	⁷ ind
	Tre pou	es were up nds moved	rooted, a 100 feet.	30-x-20-fo	ot po	le ba	rn was	s blow	n down, and a tab	le weighing 150
Shiawassee County Owosso	06	1635EST		^	0	0	0	0	Thunderstorm W	/ind
	Tre	e limbs wer	e downed	in the city	of C	woss	0.			•
Genesee County Davison	06	1636EST			0	0	5	0	Thunderstorm W	/ind
	The	city of Day	ison was	hit hạrd by	the s	storm.	. Man	y large	trees and tree limb	s up to 1-foot in

The city of Davison was hit hard by the storm. Many large trees and tree limbs up to 1-foot in diameter were blown down. Many cars and buildings were damaged by very strong winds or falling trees or branches. A large Action Auto sign was destroyed by the very strong winds. A chimney was also blown off the roof of a home. A church was damaged by a falling tree. Falling trees also took down many wires. Most of the damage was in a 1-mile-path through the center of town. The damage was caused by straight-line winds.

SEPTEMBER 1990

		·			,					🗕 SEPTEMBER 1990
		TIME		:	NO.	OF	ESTIM	IATED GE		
PLACE	DAO-E	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	K-L-L-ED	Omboc (2)	~	CROPA	CHARACTER OF STORM	
MICHIGAN Con	t'd									
Lapeer County Imlay Township	06	1645EST			0	0	3	0	Lightning	
	Lig con	htning stru- itents and st	ck an old ructure su	henhouse ffered \$800	on E) in c	Brown Iamag	City le. No	Road, liveste	near Michigan Hock were lost.	ighway 21. The
Oakland County Wixom	06	1655EST			0	0	0	0	Thunderstorm \	Wind (G52)
	was	ich of the ab s caused by 00 EST to se	a single thi	understorn	that	move	d soutl	neast fi	Shiawassee, and rom northern Grati T.	Genesee counties, ot County around
Wayne County Trenton	06	1700EST			0	0	0	0	Hail (0.75)	
Macomb County Richmond	06	1700EST			0	0	3	0	Thunderstorm \	Wind (G52)
	Str	ong winds c	aused a ci	rcus ride to	o top	ple.				
Macomb County Chesterfield	06	1700EST			0	0	4	O ,	Thunderstorm V	Wind (G61)
	Lar	ge trees we	re uprooted	l, homes d	amag	ed by	falling	trees,	and a roof was life	ted off a business.
Lapeer County Attica Township	06	1730EST	,		0	0	4	0	Lightning	
	Lig abo	htning struc out \$10,000	k a barn i in propert	n the 4200 y damage.	bloc	k in A	Attica [Fownsl	nip. The barn wa	s a total loss with
Wayne County Belleville	06	1715EST			0	0	0	0	Hail (1.75)	
Macomb County Lake St. Clair	06	1715EST			0	0	0	0	Funnel Cloud	
	A f	funnel cloud	was spott	ed over a	lake l	by Sky	ywarn	spotter	S	
Macomb County Richmond	06	1720EST			0	0	0	0	Thunderstorm V	Wind (G52)
	Lar	ge trees we	re downed	•						
Oakland County Rochester Hills	06	1728EST			1	4	3	0	Thunderstorm V	Wind (G52)
	A c by	oncession sl flying debri	nelter at a l s and four	oallfield wa others we	s top re inj	pled b jured.	y very (M27	strong O)	winds. One 27-y	ear-old was killed
Wayne County Trenton	06	1740EST			0	0	0	0	Hail (0.75)	
Macomb County Stealing Heights	06	1800EST			0	0	0	0	Thunderstorm V	Wind (G52)
Wayne County Livonia	06	1953EST			0	0	3	0	Lightning	
	Lig bed	htning struc room with	k a home a about \$3,0	at 16552 Po 00 propert	enn a y dar	nd dai mage.	maged No ir	the roo	of. Lightning dam were reported.	aged the roof and

Thunderstorm Wind (G52)

Wayne County Livonia

06 2010EST

STORM DATA AND UNUSUAL WEATHER PHENOMENA SEPTEMBER 1990 NO. OF PERSONS ESTIMATED DAMAGE TIME WIDTH OF PATH LENGTH OF PATH LOCAL Q CHARACTER OF STORM SOP HIS **PLACE** STANDARD Ę (MILES) (YARDS) MICHIGAN Cont'd Wayne County Canton Township 2035EST 2045EST 1.0 30 0 Tornado (F0) A weak tornado touched down, uprooting a few trees. Wayne County 06 2100EST 0 3 0 Lightning Livonia Lightning struck a home at 15297 Riverside just as the home owners went to bed, unaware lightning had set the roof on fire. By the time a police officer noticed the fire, most of the roof was destroyed. About \$25,000 in damage was estimated. No injuries occurred. Wayne County 06 2220EST Livonia 0 4 0 Lightning Lightning struck a home at 39345 Ross. The chimney was blown apart and bricks were found all over the lawn. The lightning also caused the insulation in the attic to burn. Damage was estimated over \$5,000. No injuries occurred. Calhoun County Northwestern ' Corner of County 06 2350EST 0 0 0 0 Thunderstorm Wind (G52) Calhoun County West-Central 06 2350EST Calhoun County Thunderstorm Wind Oak trees 2-feet in diameter were pushed over by strong winds. Calhoun County Many Locations 07 0015EST 3 0 0 0 in County Thunderstorm Wind There were many reports of downed power lines and tree limbs. **Branch County** Many locations 07 0100EST in county 3 Thunderstorm Wind (G52) There were many reports of downed power lines and tree limbs. Monroe County 0 Many areas 07 0045EST 6 5 Thunderstorm Wind There were numerous reports of damage to homes, farms and some buildings between 0045 EST and 0100 EST. The county fair building, which was under construction, was destroyed. The repairs cost close to \$400,000. Additional costs of the damage to barns, homes, and other property is over \$100,000. Damage to crops, in barns or other storage, is around \$100,000. **Jackson County** Many Locations 07 0200EST 0 3 0 in County O Thunderstorm Wind There were many reports of power lines and tree limbs downed.

> This tornado touched down only for a short while. During these few minutes, the tornado destroyed a barn and uprooted several big trees. The tornado just missed the home of the farmer with the destroyed barn. It uprooted several trees that were within several yards of the home.

0

Tornado (F1)

0

0

Oceana County **Near Ferry**

0735EST-0745EST

5.0

				4	NO.	OF SONS	ESTI	MATED AGE		SEPTEMBER 1	1990
	Q	LOCAL	LENGTH	UINTH	PER	1					
PLACE	Ē	STANDARD	PATH (MILES)	WIDTH OF PATH (YARDS)	COUNTY OF	CHING C	4-120m 0020	CACOPA	CHARACTER OF STORM		
MICHIGAN Conf	t'd										
Lake County Near Chase	14	0815EST			0	0	0	0	Thunderstorm \	Wind	
	Stre	ong winds d	lamaged a	barn.							
S Newaygo County N Kent County	. 14	0905EST- 0925EST	7.0	30	0	0	4	0	Tornado (F1)		
	A v sou blo	veak tornado thwest of Sa wn down, a	touched d and Lake, i and one ho	lown in ext in Kent Co me just we	reme unty, est of	south befor Sand	easteri e dissi Lake	n Newa pating had th	aygo County, move shortly after that. e roof blown off.	ed southeast to Several trees v	just vere
NE Kent County W Montcalm County	-14	0927EST- 0940EST	5.0	30	0	0	3	0	Tornado (F1)		
·	The Lin wes	e same storn coln in extr stern Monto nado was lin	n that causeme norther ealm Coun mited to tr	sed the tor eastern Ker ity before ees and a	nado nt Con dissip few p	near unty. pating ower	Sand I This v near lines.	Lake d weak to the to	eveloped another to ornado moved sout wn of Gowen. I	ornado near L heast into extr Damage from	ake eme this
Montcalm County Near Gowen	14	0930EST			0	0	4	0	Lightning		
•	Lig	htning struc inguished.	k a home	near the to	own c	of Gov	ven. 1	Minor	damage occurred b	efore the fire	was
Isabella County Beal City	14	0932EST			0	0	0	0	Thunderstorm \	Wind	
	Str	ong winds b	olew down	several tre	ees.						
Kent County Northeastern Part of County	14	0940EST			0	0	0	0	Thunderstorm \	Wind	
	The dan tim	nage was no	eriff report	ted many to d directly v	rees owith t	lowne he tor	d in the	he nort hat mo	heastern corner of eved through this a	the county. Trea about the s	Γhis ame
Montcalm County Southern Part of County	14	0940EST			0	0	0	0	Thunderstorm	Wind	
	The Thi	e county she	eriff report	ed many tr ociated dir	ees d	owner with	d in the	e extre rnado 1	me eastern one-fou	orth of the cou	nty.
Ionia County Near Belding	14	0949EST- 1015EST	2.0	30	0	0	4	0	Tornado (F1)		

0

0

A brief touch down occurred near Belding. One auto repair shop had the roof ripped off as it passed over the shop. No injuries were reported.

5

0

Thunderstorm Wind

Allegan County Otsego

14 1000EST

SEPTEMBER 1990

		TIME			NO. PER	OF SONS	EST II	MATED AGE		SELIEWREK 1330
PLACE	DAPE	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	K-1-mO	- WALLEY	4-00m 00x 0	CEOTA	CHARACTER OF STORM	
MICHIGAN Con	ıt'd									-
Van Buren County Paw Paw	14	1030EST			0.	0	0	0	Thunderstorm V	/ind
	Str	ong winds b	lew down	several tre	es in	the c	ity of	Paw P	aw.	
Van Buren County Glendale	14	1045EST			0	0	5	0	Lightning	
	Lig was	htning struc s engulfed i	k and dest n flames b	royed a ho y the time	me at fire t	4330 fighte	Michi rs arriv	gan Hi ved.	ghway 43 near Gle	ndale. The home
Van Buren County Paw Paw	14	1045EST			0	0	4	0	Lightning	
	Lig	htning caus	ed a home	to suffer	signif	icant	damag	e befor	re the fire could be	put out.
Van Buren County Paw Paw	14	1050EST	·		0	0	3	0	Lightning	
	Lig	htning caus	ed another	home to s	uffer	mino	r dam	age bef	fore this fire could	be put out.
Allegan County 2 S Plainwell	14	1053EST			0	0	0	0	Thunderstorm W	/ind
•	The of	e Wayland S Plainwell in	tate Police extreme s	reported s	evera llegar	l hom Cou	ies dan nty.	naged b	by strong winds just	south of the city
Van Buren County	14	1100EST			0	0	0	0	Thunderstorm W	/ind
	Sev	eral trees w	ere reporte	ed down b	y the	State	Police	.		
Allegan County NE part of county	14	1100EST			0	0	0	0	Thunderstorm W	/ind
	Sev	eral trees w	ere reporte	ed down b	y the	State	Police	.		
Kalamazoo County	14	1100EST			0	0	0	0	Thunderstorm W	/ind
	Sev	eral trees w	ere reporte	ed down b	y the	State	Police	.		
Barray County Prairieville	14	1120EST			0	0	0	0	Thunderstorm W	ind .
	One	e tree was b	lown dow	n in Prairi	eville					
Bay County Essexville	14	1130EST			0	0	3	0	Thunderstorm W	ind ind
	pov air	ver lines to as all this ha	be blown of ppened, but	down by v ut the teach	ery si iers si	trong	winds. ere was	. A lo	vinds cause several t of debris was seen nnel, just strong wi and power lines wo	n whirling in the nds. These same
Shiawassee County Ern part of										
county Tuscola County Shiawassee County	14 14	1150EST 1205EST			0	0	0	0	Thunderstorm W Hail (0.75)	7ind (G52)
Near Durand	14	1213EST			0	0	0	0	Thunderstorm W	ind (G52)

A SKYWARN spotter reported very strong winds blew down a tree 2-feet in diameter near the city of Durand.

										•
		TIME			NO. PER	OF SONS	EST IN	MATED AGE		SEPTEMBER 1990
PLACE	D&	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	K	CHICACL N	P.R.O.D	ODCODO.	CHARACTER OF STORM	
MICHIGAN Con	t'd		,					•		
Genesee County Western Part of County	14	1220EST			0	0	0	0	Thunderstorm \	Wind
•	Str	ong winds b	olew down	several tr	ees.					
Genesee County Near Flint	14	-			0	0	0	0	Thunderstorm \	Wind
	Str	ong winds b w a tree on	olew down top of it.	trees and	wires	s. A	fence v	was kn	ocked down when	the strong winds
Tuscola County Millington	14	1243EST			0	0	0	0	Thunderstorm \	Wind
	Αg	garage was l	olown ove	r by very s	strong	y wind	ds.			
Livingston County Hartland	14	1255EST- 1300EST	2.0	30	0	0	3	0	Tornado (F0)	
	A t	ornado briet l one storage	fly touched e shed. T	d down in the shed wa	the cit as des	ty of I	Hartlar d.	nd. It i	uprooted several 3	0- to 50-foot trees
Livingston County Hartland	14	1300EST			0	0	3	0	Thunderstorm \	Wind
	The	e fire depart sed damage	ment report to several	rted that str homes an	rong v d blev	vinds w dov	, not re wn mai	elated t ny tree	o the previously make limbs and a few t	nentioned tornado, trees.
Lapeer County Northwestern Part of County	14	1302EST			0	0	0	0	Thunderstorm \	Wind
	1	railer was o very strong	• •	siding blo	wn of	ff a ho	ome, a	nd mar	ny trees and limbs	were blown down
Sanilac County	14	1315EST			0	0	0	0	Thunderstorm V	Wind
	Tre	es and pow	er lines we	ere blown	down	in nu	umerou	is locat	tions across the co	ounty.
Oakland County Novi	14	1310EST- 1335EST	24.0	90	0	0	6	0	Tornado (F3)	·
	alm Ma bus dire of s	nost, but no ny 30- to 50 sinesses. The ectly by the several store	t quite co l-foot trees his by itsel tornado in s and home	ntinuous. s along the f caused si cluded win es blown d	Man dama ignific idows own,	y hor ge pa cant a blow and r	mes, b th were mount on out coofs li	usiness e uprocess of date of store fted of	Dakland County. Sees, and cars were sees, and cars were oted. Trees fell on image. Some of the fronts and one pof f some homes and age. Total damage	e badly damaged. I cars, homes, and the damage caused blice station, walls businesses. Some
Oakland County Springfield Township	14	1315EST- 1325EST	1.0	35	0	0	6	0	Tornado (F1)	

A tornado moved through the business area causing a roof to be blown off a home, and the wall of a business blown down.

Tornado (F1)

SEPTEMBER 1990 NO. OF PERSONS ESTIMATED DAMAGE TIME WIDTH OF PATH LENGTH OF PATH LOCAL P CHARACTER OF STORM PLACE STANDARD Ę (MILES) (YARDS) MICHIGAN Cont'd Oakland County Waterford 14 1315EST 3 0 Thunderstorm Wind (G62) Township Strong winds hurled a picnic table through the wall of a nearby home. A boat on Wormer Lake was also damaged. Oakland County Bloomfield Hills 14 1320EST Thunderstorm Wind (G62) Strong winds uprooted several 30- to 40-foot trees. Oakland County 14 1325EST 3 O Thunderstorm Wind (G62) Troy Strong winds ripped off a 20 x 20-foot section of a gymnasium roof. Oakland County Auburn Hills 14 1325EST Thunderstorm Wind (G62) Strong winds uprooted about 15 large trees, some 40-feet tall. One tree fell on a two-story golf course clubhouse and caused major damage to the building. Oakland County Lake Angelus 14 1325EST 0 0 0 0 Thunderstorm Wind (G62) Strong winds uprooted several trees up to 50-feet tall. Wayne County Highland Park 14 1330EST Thunderstorm Wind (G62) Very strong winds removed the roofs from four apartment buildings. Macomb County Harrison 14 1330EST 3 0 Township Thunderstorm Wind (G62) Several power lines were blown down by strong winds. Macomb County 14 1330EST Clinton Township Thunderstorm Wind (G62) Several 40-foot trees were uprooted, and several power lines were blown down. St. Clair County 1 N Port Huron 1355EST 1405EST 2.0 35 0 Tomado (F1)

St. Clair County
Marine City

14 1400EST

0 0 3 0 Thunderstorm Wind (G62)

Several large trees were uprooted and power lines were blown down by strong winds.

trees, and took down a few power lines.

14 1400EST

St. Clair County Gratiot Township This tornado touched down briefly, but caused damage to a few buildings, uprooted several large

Many large trees and numerous power lines were blown down by very strong winds.

Thunderstorm Wind (G62)

SEPTEMBER 1990

										_ SEPTEMBER	1990
	<u> </u>	IME			NO.	OF SONS	ESTIM DAMA	ATED			
PLACE	Al	CAL NDARD	LENGTH OF PATH	WIDTH OF PATH	K	- K-	2000	COCOEN	CHARACTER		
, rende	Ė		(MILES)	(YARDS)	D D	COMPOCE	4-120ma0	S	STORM		
MINNESOTA	<u>I.</u>			L	<u> </u>						
Carlton County											
Wright Aitkin County	05 161	19CST			0	0	?	?	Hail (1.25)		
McGregor	05 170	OCST			0	0	?	0	Hail (1.75)		• . •
Tamarac	05 171	IOCST			0	0	? .	0 :	Thunderstorm V Hail (2.75)	Vinds	
	Large tr	ees were	e uproote	d north of	Tama	ırac.					, ,
5 N Libby	05 171	18CST			0	0	?	0	Thunderstorm V	Vinds	
	Large tr	ees were	e downed	north of l	Big Sa	ındy l	Lake.				
Carlton County Kettle River Cromwell	05 172 05 172	20CST 25CST			0	0	?	0	Hail (2.00) Hail (1.75)		
St. Louis County 15 NW Duluth	05 173	30CST			0	0	?	0	Thunderstorm V	Vinds	
	There w	ere repo	orts of up	rooted tree	es.						
Carlton County Mahtowa	05 220	OCST			0	0	?	0	Thunderstorm V	Vinds	
	There w	ere repo	orts of do	wned trees	s.						
Southern St. Louis County											
Carlton County		XXCST- XXCST			0	2	6	0	Flash Flood		
	to Ashla highway over the some ev	s. The he and, Wi as collap city dan acuation	eaviest rai sconsin of sed and to m. Due to is were co	ins were loon the eas he streets this high	cated t. In of The flow, In ad	in a 7 the ompse there	0-mile wake on fille were c n about	wide lof the dwith oncerr	er sections of Carl band from Grand R se heavy rains, se a nearly 2 feet of v as about the integri beople were evacua- re.	apids on the egments of vater as it floot ty of the dan	west some owed n and
	of Trans Cooke F	sporation Park had	n estimate seven cu	ed damages Ilverts was	s to e	xceed forci	\$1 ming the	llion. subsec	roads. The Minno Trunk Highway 2 quent evacuation a ng the road.	10 accessing	g Jay
	flowed t	through Carlton b	the school oys were	ol. Through the control of the contr	gh thi ien the	s enti	re ever	nt only to was	ages due to the torn two injuries were de some of the swift but were rescued.	e reported. t-moving wa	Two
Swift County Renson	07 031	12CST			0	0	7	7	Hail (0.75)	· ·	

Swift County Benson Dougles County	07	0312CST	**	0	0	?	?	Hail (0.75)
Douglas County Alexandria Stevens County	07	0314CST		0	0	?	?	Thunderstorm Winds (G65)
Morris	07	0345CST		0	0	?	?	Thunderstorm Winds
Kandiyohi County Willmar	07	0455CST		0	0	5	0	Thunderstorm Winds (G61)

Large hail and strong winds caused havoc in Willmar. Scattered trees were downed but the greatest damage was to two car dealerships. Between the two, 225 cars were damaged by hail. Damages ranged from \$300 to \$2,000 per vehicle.

SEPTEMBER 1990

	_	r	r	r	T					SEPTEMBER 1990
		TIME			NO. PER	SONS	EST IN	MATED AGE		
PLACE	DA I	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED		-compose	ഗമഠമഗ	CHARACTER OF STORM	
MINNESOTA Co	ont'o	i								
Eastern Kandiyohi		,								
County Meeker County Stearns County	07	0500CST			0	0	?	?	Thunderstorm V	Vinds (G61)
	Wi	es were top Ilmar to Cos Sauk Centr	smos in M	hail cause eeker Cour	d cor	nsidera There	able cr were i	rop dar reports	Hail (1.00) mage in a swath f of strong winds do	rom southeast of owning trees near
Meeker County Kingston	07	0530CST			0	0	?	?	Thunderstorm V	Vinds
	Αŀ	oarn was de	stroyed by	strong thu	ınder	storm	winds			
Waseca County 2 E Alma City	07	0610CST			0	0	?	. ?	Thunderstorm V	Vinds
	dov	oarn was blo vn onto the crops.	wn 20-feet first. The	off its fou re were als	ndati o rep	on. T orts o	he resu f many	ult was y down	a collapse bringing ed trees in the area	the second floor and hail damage
Washington County Oakdale Koochiching County International	09	1616CST			0	0	?	?	Hail (1.00)	
Falls	11	1700CST			0	0	?	0	Hail (0.75)	
St. Louis County 30 NW Ely	11	1810CST			0	0	?	0	Hail (1.25)	
	Tw hail	o off-duty N l 1.00 to 1.	National W 25 inches	eather Servin diameter	rice e r. Th	mploy nis lar	ees car ge hail	mping I lasted	in the Boundry Wa for 10 to 15 minu	ters area reported ites.
Beltrami County Blackduck Koochiching County	11	1910CST			0	0	?	0	Hail (1.00)	
Little Fork Cass County	11	1910CST		•	0	0 .	?	0	Hail (1.25)	
Longville St. Louis County	13	1606CST			0	0	?	?	Hail (1.75)	
22 ENE Hibbing	13	1632CST			0	0	?	0	Hail (0.75)	
Crow Wing County 20 NW Brainerd	13	1634CST			0	0	?	?	Thunderstorm V	/inds
	The	ere were rep	orts of do	wned trees	•			•		
Aitkin County Hill City	13	1645CST	0.1	10	0	0	0	0	Tornado (F0)	
	A t	ornado brie	fly touched	d down in	an op	oen ar	ea wes	t of H	ill City.	
Hill City Crow Wing County	13	1647CST			0	0	?	0	Hail (2.00)	
15 W Brainerd Aitkin County	13	1706CST	•		0	0	0	0	Funnel	
5 SE Hill City	13	1745CST			0	0	0	0	Funnel	
St. Louis County 4 SW Duluth	13	1900CST			0	0	?	0	Thunderstorm W	/inds
	Sev	eral trees u	ere downe	d by stron	a wii	nde				

Several trees were downed by strong winds.

·	71115	T		NO.	OF SONS	EŞŢĮ	MATED AGE		SEPTEMBER	1990
	D LOCAL	LENGTH	WIDTH	K	I.I					
PLACE	D LOCAL T STANDARD	OF PATH (MILES)	WIDTH OF PATH (YARDS)	Compo	CHINCLE	P ROPLEST Y	CACOPO	CHARACTER OF STORM		
MINNESOTA C	ont'd									
Brown County New Ulm	14 0015CST	•		0	0	?	?	Hail (1.75)	i.	
Nicollet County Courtland	14 0020CST			0	0	?	?	Hail (0.75)		
Le Sueur County Le Center	14 0110CST	•		0	0	?	?	Hail (0.75)		
MISSISSIPPI										
Jones County Laurel	02 1845CST			0	0	3	0	Thunderstorm W Hail (0.80)	inds .	
	Several trees	and power	lines were	blow	n dov	vn.		11an (0.00)		
Rankin County 2 W Brandon	04 1500CST	•		0	0	3	0	Thunderstorm W	'inds	
	Numerous tre	es were blo	wn down	in Cr	ossga	tes sub	divisio	n.		
Jasper County 8 E Bay Springs	04 1515CST	•		0	0	4	0	Thunderstorm W	'inds	
	Three barns at limbs and top	nd three how s of trees o	uses had m ff in a hal	inor 1 f-mile	oof da	amage. e area.	Sever	al trees were blown	down and 1	nany
Rankin County 4 N Luckney	04 1707CST	•		0	0	3	0	Thunderstorm W	inds (G80)	
	The tower at a five-minute	Ross Barne period. D	tt Reservoi	ir spil blow	llway n off:	record	ed win	d gusts of 75 knots the Reservoir Fire	and 80 kno Station.	ts in
Harrison County Wool Market	04 1820CST	•		0	0	3	0	Thunderstorm W	inds	
	A house traile	er was blow	n off its b	locks						
Hancock County 3 NW Sellers and		,		•	•	•	•	TT 11 (0.75)	•	
Kiln Humphreys County	04 1830CST			0	0	0	0	Hail (0.75)		
Isola	08 1635CST			0	0	0	0	Hail (0.75)	, r• 1	
Oktibbeha County	Numerous lar	ge trees we	re blown d	0 lown	0 on po	3 wer lii	0 nes cau	Thunderstorm We sing extensive power		cross
Clay County	northern Okti		ny.	0	0	3	0	Thunderstorm W	inds .	
.,,	Numerous tre		own down							
MISSOURI			- · ·				, -3.			
Jefferson County DeSoto	09 2107CST			0	0 .	0	0	Hail (1.75)		
	Hail to 1.75-i	nch diamet	er was rep	orted	just 1	north c	of DeSc	oto.		,
Gentry County	27 1630CST	•		0	0	0	0	Hail (1.00)		
	Hail to 1-incl	diameter v	was reporte	ed in	the so	outhwe	stern p	ortion of the count	у.	

SEPTEMBER 1990 ESTIMATED DAMAGE NO. OF PERSONS TIME LENGTH OF PATH: WIDTH OF PATH LOCAL CHARACTER OF STORM PLACE STANDARD Ē (MILES) (YARDS) MISSOURI Cont'd Gentry County King City 27 1720CST 0 0 0 Hail (1.75) Hail ranging in size from 1.25- to 1.75-inch diameter produced crop damage. **Daviess County** 27 1815CST 0 **Pattonsburg** Hail (1.75) There was hail to 1.75-inch diameter. **Grundy County** 2 27 1945CST Trenton Hail (0.75) Thunderstorm Winds Hail to 0.75-inch diameter and wind gusts to 46 mph knocked down some tree limbs. One-half inch of rain fell in five minutes. **MONTANA** None reported. **NEBRASKA** Wayne County 7 E Wayne Lightning 02 Early Morning 0 5 Lightning struck a television antenna on a house, starting a fire which completely destroyed the house and its contents. Keith County 9 N Ogallala 03 Evening 0 5 Thunderstorm Winds Thunderstorm winds destroyed three boats at Lake McConaughy. A dozen other boats were blown from their moorings into open waters of the lake. Lancaster County 07 1735CST 0 ? ? 0 Hail (1.50) Lincoln One and one-half-inch size hail fell at 14th and Old Cheney Road in Lincoln. Richardson County 07 2050CST Falls City 0 0 Thunderstorm Winds Strong gusts ripped off part of the roof on a business. Adams County Hastings 09 1730CST 0 2 0 Hail (0.75) Thunderstorm Winds (G50) Hail and thunderstorm winds gusting to 58 mph caused minor tree damage. **Box Butte County** 15 SW Alliance 26 Late Night 3 Lightning Lightning started a fire in a stack of hay bales. About 25 tons of hay was destroyed, with an estimated value of \$3,600. **NEVADA**

46

Lightning struck and killed a motorcycle driver and injured his passenger in Las Vegas.

Lightning

02 1600PST

Clark County

SEPTEMBER 1990 ESTIMATED DAMAGE NO. OF PERSONS TIME LENGTH OF PATH LOCAL CHARACTER PLACE STANDARD

	5		(MILES)	(YARDS)	D	D B	R T Y	S	STORM	
NEVADA Cont'	d									
Clark County	03	1300PST			1	1	0	0	Thunderstorm W	'inds
	Thu	understorm Lake Mead	winds esti . One per	mated by t	he N	ationa ed and	l Park l anoth	Servic er inju	e at over 60 mph o	verturned a boat
Clark County	18	1600PST			0	0	?	0	Flash Flood	•
energia de la composição	clo	e National P sed due to t or from a th	flooding.	A nearby	sever autor	ral roa nated	ids inte rain g	o the Lage rep	ake Mead National ported nearly 2 incl	Recreation Area nes of rain in an
Washoe County	25	1330PST		•	0	0	0	0	Funnel Cloud	
A	A v	weather spotes north of	tter reporte Reno. Th	ed a funne ne funnel c	l clou loud	ıd spa was v	wned isible	by a th for five	understorm in Palo e minutes before di	mino Valley, 15 ssipating.
NEW HAMPSH	IRE		C.							
· ;	No	ne reported.	•				••			
NEW JERSEY,	Nort	hern								
	No	ne reported.	•							
NEW JERSEY,	Sout	hern								
,		ne reported								
NEW MEXICO		•								
Sandoval County Jemez Springs	07	1145MST 1300MST			. 0	0	2	0	Flash Flood	•
.*	Tw the	o-inch rains day, at 163	s in a 40-r 31 MST, b	ninute peri oulders w	od pr	roduce move	d floo d from	ding o State	f highways and roa Highway 4 around	dways. Later in Jemez Springs.
Roosevelt County N Portales	10	2030MST	1		0	0	5	?	Hail (1.75)	
	occ	lf ball-size b curred to ho e hail still o	mes, wind	lows, vehic	cles, s	sheds,	trees,	and ci	of 6 inches in some ops. The public red.	places. Damage ported golf ball-
Roosevelt County Portales	10	2050MST			0	0	0	0	Hail (1.00)	
•	Nic	kel-size hai	il was repo	orted in Po	rtales	by th	ne shei	riff's o	ffice.	
Eddy County Lakewood	14	1225MST							Funnels	. The second of
	The	e public rep	orted two	funnel clo	uds n	ear L	akewo	od.		
Lea County Hobbs	16	1535MST 1740MST			0	0.	4	0	Flash Flood	,

The Civil Defense Director for Lea County reported flooding in Hobbs with streets and ditches full of water. Some houses and businesses were inundated with water; many cars were reportedly abandoned.

SEPTEMBER 1990

PLACE	DA	TIME LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO PER	OF SONS	ESTIM DAMA PROPE	AGE CROPS	CHARACTER OF STORM	SEPTEMBER	13
·	Ė	O TANDAND	<u> </u>	Į.	E	OmzaC	- Dam 0	SPS	STÖRM		

NEW MEXICO Cont'd

<u>De</u>	Ba	ca	Co	un	ty
E.	net.	Cu	m	SAF	•

20 1330MST

0 0 0 0 Funnel

The County Civil Defense reported a funnel cloud southeast of Fort Sumner.

San Juan County Farmington

28 1450MST-1510MST

0.2

10 0

0 Tornado (F0)

0

?

The Flight Service Station reported a tornado 10 to 20 miles southwest of the Farmington Airport tower.

0

Lea County

1 N Jal 1 S Jal 1 S Jal 1 S Jal 28 1603MST 28 1615MST 28 1615MST

0 0 0

Hail (1.75) Hail (1.00)

Thunderstorm Winds (G52)

The Jal Police Department reported golf ball-size hail and some flooding 1 mile north of Jal. One-inch-size hail and wind gusts to near 60 mph were also reported by the police department 1 mile south of Jal.

Lea County Jal

28 1550MST-1730MST

0 4

Flash Flood

The Jal Mayor reported 3-inch rains, golf ball-size hail, and 40 mph winds caused stripped trees, and water 4-feet deep in some low-lying areas. Flooding occurred in residential areas with damage reported as likely.

Santa Fe County Northern Third

28 2030MST-2130MST

0 0 4

Flash Flood

Rains of 1 to 1.50 inches caused flooding and blocked roads and turned arroyos into rivers and damaged homes in Santa Fe, El Rancho, Nambe, Cuyamungue, and Silverado in the northern third of Santa Fe County. Two cars were washed down two different arroyos. Lightning also caused power outages in much of this area.

NEW YORK, Central

Otsego County Morris	02	1409EST	0	0	3	2	Thunderstorm Winds
Delaware County Walton Hamden	02 02	1443EST 1443EST	0	0	4 3	2 0	Thunderstorm Winds Thunderstorm Winds
Rensselear County Schaghticoke Washington County	02	1515EST	0	0	5	0	Thunderstorm Winds
Easton Sullivan County	02	1530EST	0	0	3	0	Thunderstorm Winds
Forrestburg Narrowsburg	02 02	1555EST 1615EST	.1	10	?	0	Lightning Thunderstorm Winds

Lightning killed one male while he was fishing with friends on the Rio Reservoir. The lightning bolt killed the victim instantly, striking him in the left side of the head. His body was thrown into the water. The fishing vessel also received minor damage. Thunderstorm winds brought down trees, tree limbs, and power lines. In the community of Schaghticoke, these strong winds blew down trees which crushed two cars in the parking lot of a local eatery. (M370) (fishing craft)

SEPTEMBER 1990 NO. OF PERSONS ESTIMATED DAMAGE TIME LOCAL LENGTH WIDTH-CHARACTER

PLACE	E	STANDARD	PÄTH (MILES)	PĂTH (YARDS)	(E 5	Ommo .)	Оошьст- С	Ö P S	STORM	
NEW YORK, Ce	ntra	l Cont'd								,
Area Wide	18	AM			0	0	?	?	Cold	
	An sign	abnormal c nificant dan	old snap p nage to cro	roduced se ops.	veral	date-1	record	low te	mperatures.	This early frost caused
NEW YORK, Co	asta	1								
Suffolk County Sound Beach	02	2100EST			0	0	0	0	Hail (0.75)	
	Stro One	ong thunder e such thun	storms de derstorm p	veloped ald roduced di	ong a ime-s	nd ah ize ha	ead of il at So	a colo	d front movin Beach.	ng across Long Island.
NEW YORK, W	ester	n ·								
Erie County Clarence	14	1900EST			0	0	4	0	Thundersto	orm Winds
	hea Dar	vý rains and nage report asketball po	l strong wi s included:	inds. Num	erous crush	trees ed by	and w	ires w	ere downed in , some siding	nderstorms containing the town of Clarence. stripped from a house, rd, and a fence blown
NORTH CAROL	INA	.								
Dare County Duck	01	1223EST			2	0	0	0	Rip Currer	nts
	Car	oe Hatteras.	. Two y	oung child	lren v	vere	drown	ed nea	ir Duck. Di	long the coast north of uring the weekend of f the rip currents.
Hyde County Swan Quarter	03	1415EST			1	4	0	0	Lightning	
	Fou taki	ır people w ing refuge ι	ere injured inder a wo	d and one poden pier	person at Sw	n was an Q	killed uarter.	when (M2	they were st 10)	ruck by lightning after
Person County Roxboro Halifax County	07	1750EST			0	0	0	0	Hail (0.75)
Near Enfield Martin County Bertie County	07 07 07	1915EST 2025EST 2355EST			0 0 0	0 0 0	0 0 0	0 0 0	Thundersto Thundersto Thundersto	orm Winds
	Thi stat	inderstorm e. Nickel-s	winds blev size hail fe	w down tre ll in Roxb	es an oro.	d pov	ver lin	es acro	oss northern a	nd eastern parts of the
Catawba County Southwest Lincoln County Northern Lincoln	08	1805EST			0	0	0	0	Hail (0.75))
County	08	1830EST			0	0	0	0	Hail (0.75))

Thunderstorm Winds 10 1450EST

Nickel-size hail fell in Catawba and Lincoln counties.

Alexander County

SEPTEMBER 1990

Г 		,	,		TNO	05	FCTIA	MITTO		7 SEPTEMBER 1990
		TIME			PEŔ	OF SONS	ESTIN DAMA	IGE		
	Đ	LOCAL	LENGTH OF PATH	WIDTH OF PATH	K	I N	P R	Ç	CHARACTER OF	
PLACE	Ē	STANDARD		1	KTLLED	Ν̈́	COULT OC DO	NTO20	OF STORM	
			(MILES)	(YARDS)	Б	DAXED	Ŗ	,		
	<u> </u>	<u> </u>	<u></u>	L	<u> </u>	<u></u>	Ý)
NORTH CAROL	INA	Cont'd								
Iredell County	10	1525EST			0	0	0	0	Thunderstorm W	inds
Cleveland County North of Falston	10	1605EST			0	0	0	0	Hail (0.75)	
Anson County Lilesville	10	1637EST			0	0	0	0	Hail (0.75)	
Johnston County West of Smithfield	10	1715EST	٠.		0	0	0	0	Thunderstorm W	'inds
Stanley County New London	10	1800EST			0	0	0	0	Hail (0.75)	
Pitt County 2 E Greenville	10	2150EST			0	0	0	0	Hail (1.00)	
2 L GICAIVING			41	.:	•	-	•		• •	T I
	pov just	understorms ver lines we t west of Sr	ere blown on the part of the p	down in A	lexan	der an	me- to id Ired	nickei ell cou	-size hail in many a nties. Two trees w	reas. Trees and rere blown down
Dare County W of Salvo										
and Wave	14	0930EST			0	0	0	0	Waterspout	
Carteret County	14	1030EST			0	0	0	0	Waterspout	
	ES	merous waters r. As many stal waters	y as three a	it a time w	west ere vi	of Sa sible	lvo in (from t	the Par he sho	nlico Sound from 0 re. A waterspout w	930 EST to 1115 as sighted in the
Carteret County Harkers Island	15	0545EST	0.5	40	0	0	5	0	Waterspout Tornado (F2)	
·	Sha Har auto	small wate ackleford Ba rkers Island omobile, de re near \$100	inks. The . A motel stroyed a j	nado touch tornado mo being reno picnic shel	ned doved ovated ter, a	lown on lar I sustand a s	in Band at the sined results of the sined results of the sine of t	ick So ie Cape najor c erry co	ound between Harle Lookout National damage. The tornaconcession office. D	kers Island and Seashore site on do overturned an amage estimates
NORTH DAKOT	Ά									
Wells County	~-	0005.00			•	^	•	•	सुन् ः	" 1 (CEA)
Fessenden 8 SW Hurdsfield	06 06	2225CST 2230CST			0	0	0	0	Thunderstorm W Hail (0.75)	inds (GS2)
Stutsman County									, ,	
Jamestown Medina	06 06	2250CST 2325CST			0	0	4	4 4	Hail (1.75) Hail (1.75)	
Jamestown (JMS)	06	2339CST			0	0.0	4 4 4 4	4	Thunderstorm W	inds (G62)
Montpelier `	06	2355CST			0	0	•	4	Thunderstorm W	• • • • • • • • • • • • • • • • • • • •
	A v	vind gust to utrailer on	71 mph wa Interstate 9	as recorded 14, blew o	l at th ver su	e Jam inflov	estowr ver stal	ı Airpo lks, an	ort. The winds over d downed trees.	turned a tractor-
Barnes County Litchville	07	0015CST			0	0	4	4	Thunderstorm W	inds (G52)
Valley City	07	0105CST			0	0	4	4	Thunderstorm W	inds (G52)
	Win dov	nds blew do vn corn and	wn trees at sunflower	nd power li stalks alo	ines, on	damag e Bari	ging ca nes and	rs, and I LaM	la few homes. The oure County line.	winds also blew
Ransom County Enderlin	07	0020CST			0	Λ	5	5	Thunderstorm W	inde (G61)
Sheldon	07	0045CST			0	Ŏ	5 5 0	5 5	Thunderstorm W	inds
McLeod	07	0110CST			0	0	U	0	Thunderstorm W	inas (G32)

SEPTEMBER 1990

	1									PELIFWREK	1770
		TIME		·	NO.	OF SONS	DAMA	AGE			
PLACE	DA	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	I N JURED	4-20m 2020	CRODW	CHARACTER OF STORM		

NORTH DAKOTA Cont'd

The combination of wind, hail, and rain caused extensive crop damage over 55 square miles in northern Ransom County. The heaviest damage was near the towns of Enderlin and Sheldon. The storm downed power poles and lines, destroyed farm buildings and equipment, ravaged crops, and damaged homes and other buildings.

La Moure County Marion	07	0030CST	0	0	4	4	Thunderstorm Winds (G52)
Sargent County Gwinner Richland County	07	0103CST	0	0	0	0	Thunderstorm Winds (G52)
Abercrombie Wahpeton 5 W Fairmount	07 07 07	0120CST 0130CST 0140CST	0 0 0	0 0 0	3 3 3	3 3 3	Thunderstorm Winds Thunderstorm Winds Thunderstorm Winds

Winds downed trees and power poles causing widespread power outages.

Cass County Amenia

07 0155CST

0 0 3 3 Thunderstorm Winds (G52)

A cluster of fast-moving thunderstorms developed over central North Dakota moving southeastward at 50 mph. These storms did most of their damage over southeastern North Dakota, destroying mature corn and sunflower crops.

OHIO

Guernsey County Byesville Countywide	02	1747EST 1747EST-		0	0	4	0	Thunderstorm Winds
Countywide	1900EST	1900EST		0	0	4	0	Urban and Small Stream Flooding
	Thu	inderstorms blew down	nower lir	ies in	Bves	sville a	and ma	my creeks and streams flooded.

Lorain County Penfield Wellington and Brighton	06	1345EST	0	0	4	0	Thunderstorm Winds
Geauga County Novelty	06	1355EST	0	0	?	0	Hail (0.75)
Summit County Twinsburg	06	1412EST	0	0	?	0	Hail (0.75)
Ashland County Ashland	06	1420EST	0	0	4 ?	0	Thunderstorm Winds Hail (0.75)
Wayne County 2 W Clinton	06	1445EST	0	0	4	0	Thunderstorm Winds
Ashtabula County Countywide	06	1455EST	0	0	4	0	Thunderstorm Winds
Holmes County 2 W Wilmot	06	1500EST	1	1	0	0	Lightning
Stark County Jackson Township	06	1500EST	0	0	4	0	Thunderstorm Winds
Summit County Clinton	06	1500EST	0	0	4	0	Thunderstorm Winds
Trumbull County Hubbard Township	06	1530EST	0	0	4	0	Thunderstorm Winds

Thunderstorms moved across northeastern Ohio blowing down trees and power lines in many areas and dropping large hail. Lightning killed a woman and injured her daughter while they were out in a field. (F50O)

	1	TIME	***************************************		NO.	OF SONS	ESTI	MATED	SEPTEMBER 1990
PLACE	DA	TIME LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	I N J UR ED	PROPERTY	CEOPN	CHARACTER OF STORM
OHIO Cont'd					·	<u>, </u>	-		
Geauga County 1 SW Chardon	06	1408EST- 1413EST	1.0	20	0	0	4	0	Tomado (F0)
	A t	ornado touc		on Bass L	ake I	Road	damagi	ng tree	es and some buildings.
Cuyahoga County Countywide Lake County	06	1915EST		,	3	3	4	0	Thunderstorm Winds
Painesville Willowick	06	1920EST			0	0	4	0	Thunderstorm Winds
Medina County Medina	06	1930EST			0	0	4	0	Thunderstorm Winds
Mahoning County Berlin Lake Columbiana County Countywide	06	1940EST			0	0	4 ?	0	Thunderstorm Winds Hail (0.75)
Countywide	06	2000EST			0	0	4	0	Thunderstorm Winds
Trumbull County Warren	06	2013EST			0	0	4	0	Thunderstorm Winds
Mahoning County Beaver Township Stark County Massillon	06	2020EST			0	0	4	0	Thunderstorm Winds
	06	2100EST			0	0	4	0	Thunderstorm Winds
Summit County Twinsburg	06	2310EST	r		0	0	?	0	Hail (0.75)
Portage County Streetboro	06	2350EST			0	0	4	0	Thunderstorm Winds
	6th to 6	. Trees and 52 mph at tl men were l	power lin he Clevela killed and	es were ag ind Light I three mer	ain da House 1 wea	amage and re inj	ed with camper ured v	some or some of some o	cond time during the evening of the damage to buildings. Winds gusted a overturned at Berlin Lake. Three heir sailboat was pushed onto the areas. (F500, F550, F370)
Cuyahoga, Lorain, Medina, Lake, Ashtabula, Geauga Counties	06 07	1900EST- 0700EST			0	0	6	0	Urban and Small Stream Flooding
Wayne, Summit, Stark, Portage, Trumbull Counties	06 07	2100EST- 0900EST			0	0	6	0 .	Urban and Small
Mahoning, Columbiana, Carroll Counties	06 07	2300EST- 1000EST			0	0	6	0	Stream Flooding Urban and Small
Jefferson County	07	0000EST- 1200EST			0	0	6	0	Stream Flooding Urban and Small Stream Flooding
	from Ster	ny areas. Fl m backed	looded bas up sewers	ements and occurred	over	flowi ougho	ng stre ut mu	ams an	o dropping 2 to 5 inches of rain in d creeks were widespread. Damage Lorain and Cuyahoga counties, people as creeks throughout town

	1	Γ	Γ	ı . 	LNO	OF	ECT!	MATER		SEPTEMBER 1	990
		TIME			PER	OF SONS		AGE			
PLACE	D E	.LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KTLLED	OMWC6.2-	4-80mm0020	W TO SAC	CHARACTER OF Storm		
OHIO Cont'd										_	
Cuyahoga County Independence	07 08	0200EST- 0300EST			0	0	4	0	Flood		
	Hea Old The floo	avy rain pus l Portage the river at Inc od stage. M	hed the Cu e river cre dependence linor dama	yahoga Ri sted at 11. c crested at age occurre	ver a 1 fee 20.2 ed to	bove to the tat 0.0 feet a prope	flood s 300 Es at 0930 erty alo	stage at ST, wh SEST ong the	Old Portage and I nich was 2.1 feet a on the 7th. This was river.	ndependence. bove flood sta vas 4.2 feet abo	At ge. ove
Cuyahoga County Warrensville Hts	07	0250EST			0	0	4	0	Thunderstorm V	Vinds	
	Thu	understorms	blew dow	n trees and	d stri _l	pped s	siding	from a	house.		
Butler County Milford Township	09	0333EST			0	0	5		Thunderstorm V	Vinds	
•	A t	hunderstorn	n uprooted	and blew	dowr	n trees	s, with	some	of them falling on	homes.	
Delaware County Sunbury	09	0730EST	•		0	0	4	0	Thunderstorm V	Vinds	
•	A t	hunderstorn	n blew dov	vn trees, d	estro	yed a	swing	set, ar	nd blew a car off F	Route 61.	
Huron County Milan	09 10	0830EST- 0200EST		*.	0	0	3	0	Flood		
	Hea feet	avy rain pus t above floo	hed the Hu	ıron River d only mir	at M or da	ilan to amage	16.2 occur	feet at red.	1300 EST on the 9	th. This was	2.2
Preble County 6 SW Eaton	12	0615EST			1	0	0	0	Lightning		
	Lig	htning kille	d a man w	hile worki	ng o	n his f	farm.	(M220) ·		
Van Wert and Putnam County 2 NW Delphos to 5 NW Columbus											
Grove Grove	14	1405EST- 1425EST	15.0	30	0	0	5	0	Tornado (F1)		
	nor pov	theast and c	rossed into	Putnam C	Count	y at 14	411 ES	T and	eastern Van Wert (lifted at 1425 EST irns and outbuildin	Many trees a	and
Fulton County 2 SW Wauseon	14	1345EST			0	0	4	0	Thunderstorm V Hail (0.75)	Vinds	
Darke County Greenville Union City	14 14	1420EST 1420EST			0	0	4 4	0	Thunderstorm V Hail (1.75)	/inds	
Hancock County Findlay	14	1430EST	•		0	0	4	0	Thunderstorm V	Vinds	
Maimi County Piqua Proble County	14	1440EST			0	0	4	0	Thunderstorm V	/inds	
Preble County Eaton Seneca County	14	1500EST			0	0	4	0	Thunderstorm V	/inds	
Republic Republic	14	1505EST			0 .	0	5	0	Thunderstorm V	/inds	

__ SEPTEMBER 1990

		TIME			NO. OF PERSONS		ESTIMATED DAMAGE] SEPTEMBER !
PLACE	DAPE	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	K L L E D	T T D R W D	4-800 FB-7	റയാഗ	CHARACTER STORM	
OHIO Cont'd										
Shelby County Pimberton	14	1510EST			0	0	4	0	Thunderstorm W	inds
Champaign County Countywide	14	1515EST			0	0	5	0	Thunderstorm W	/inds
Huron County Norwalk	14	1530EST			0	0	4	0	Thunderstorm W	
Marion County	14	1530EST			0	0	4	0	Thunderstorm W	•
1 N Prospect Madison County							•			
Plain City Lorain County	14	1543EST			0	0	4	0	Thunderstorm W	
Lorain Delaware County	14	1555EST			0	0	4	0	Thunderstorm W	inds
Delaware Clermont County	14	1600EST			0	0	4	0	Thunderstorm W	inds
1 E Amelia	14	1610EST			0	0	4	0	Thunderstorm W	inds
Cuyahoga County Countywide	14	1615EST			0	0	5	0	Thunderstorm W	inds
Franklin County Columbus	14	1630EST			0	1	5	0	Thunderstorm W	inds
Pickaway County 2 W Tarlton	14	1700EST			0	0	4	0	Thunderstorm W	'inds
Licking County Alexandria										
Utica Ross County	14	1710EST			0	0	4	0	Thunderstorm W	inds
Northern half	14	1710EST			0	0	4	0	Thunderstorm W	inds
Stark County Justus										
Massillon Fairfield County	14	1720EST			0	0	4	0	Thunderstorm W	inds
Countywide Ashtabula County	14	1725EST			0	0	4	0	Thunderstorm W	inds.
Northern half Trumbull County	14	1730EST			0	0	4	0	Thunderstorm W	inds
Champion		17.44CCOT		•	•	^			erri 1 . 331	
Warren Mosquito Lake	14	1746EST			0	0	4 ?	0	Thunderstorm W Hail (0.75)	inds
Carroll County Countywide	14	1820EST			0	0	4	0	Thunderstorm W	inds ·
Hocking County Logan	14	1820EST			0	0	4	0	Thunderstorm W	
Mahoning County Youngstown	14	1820EST			0	0	4	0	Thunderstorm W	
Columbiana County 2 S Damascus		1829EST			0	0	4	0	Thunderstorm W	
Harrison County	14	1840EST			0	0	4	0	Thunderstorm W	
Countywide Athens County					_	•				
Nelsonville Washington County	14	1845EST			0	0	5	0	Thunderstorm W	inds
Fleming 1 N Newport	14	1855EST			0	0	4	0	Thunderstorm W	inds

Thunderstorms moved across much of Ohio, downing trees and power lines, and damaging buildings. Large hail fell in some areas. A school lost its roof and a barn was destroyed in Republic and winds gusted to 60 mph in Plain City. Winds gusted to 71 mph at the Lorain Light House, 63 mph at Cleveland's Burke Lake Front Airport, and 82 mph at the Cleveland Light House. The third floor of a building in downtown Columbus collapsed, crushing many cars and injuring one woman.

		TIME			NO. PER	OF SONS	ESTIN DAM/	AATED AGE		SEPTEMBER	1990
PLACE	DA E	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED			COCODW	CHARACTER OF STORM		

OHIO Cont'd

Warren, Clinton
Fayette Counties
2 NE Waynesville to
Washington Court House

1545EST-1655EST 37 200 Tornado (F2)

A tornado touched down in extreme northeastern Warren County and traveled almost due east into Clinton County at 1600 EST and into Fayette County at 1630 EST. Four people were injured in Warren County and two were injured in Clinton County. Many homes, barns and outbuildings were damaged, trees were uprooted or blown over, and power lines were blown down. One home was destroyed in Warren County and two mobile homes were destroyed in Clinton County. Seven barns and outbuildings were destroyed along the path.

Cuyahoga County Cleveland

16 0956EST ? 0 Thunderstorm Winds

A thunderstorm moving along Lake Erie's shore produced winds of 71 mph at the Cleveland Light House and 62 mph at Cleveland's Burke Lake Front Airport.

Washington County 1 NW Dunbar

1315EST-16 1320EST 1 20 0 0 5 0 Tornado (F0)

A tornado touched down and moved a large shed off its foundation, moved around some heavy equipment, took the roof off a building, and blew windows out of a van.

Cuyahoga County Cleveland Lake County Mentor

23 1915EST Thunderstorm Winds 23 2058EST 0 0 0 Thunderstorm Winds

Thunderstorms moving along Lake Erie's south shore produced wind gusts to 67 mph at the Cleveland Light House and 59 mph at Cleveland's Burke Lake Front Airport. Trees and power lines were blown down in Mentor.

Clark County 1 E Springfield
Madison County 5 NW London
Fayette County
Jeffersonville Brown County
Russellville Highland County
Mowrystown

29	1630EST	0	0	4	?	Hail (1.50)
29	1720EST	0	0	4	?	Hail (1.00)
29	1745EST	0	0	4	0	Thunderstorm Winds
29	1830EST	0	0	4	0	Thunderstorm Winds
29	1830EST	0	0	4	0	Thunderstorm Winds

Thunderstorms moved through southern Ohio blowing down trees and power lines and dropping large hail, which damaged vehicles and broke windows.

OKLAHOMA

Blaine County Canton Major County	10	1405CST	0	0	?	?	Hail (0.88)
1 S Cedar Springs Major County	10	1407CST	0	0	?	?	Hail (1.75)
Near Cedar Springs	10	1410CST	0	0	?	?	Thunderstorm Wind

______ SEPTEMBER 1990

		TIME			NO. PER	OF SONS	EST 11	MATED AGE	SEPTEMBER 1990
PLACE	Đ	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLE	CHIZOCK I	~—\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	W CORO	CHARACTER OF STORM
OKLAHOMA Co	nt'o	i							
Grant County 6 W Medford	10	1620CST			0	0	?	?	Hail (1.00)
Beckham County Sayre	10	1625CST			0	0	4	?	Lightning
Kay County 1 E Newkirk	10	1637CST			0	0	?	?	Hail (1.75)
Grant County 12 N Newkirk	10	1705CST			0.	0	?	?	Hail (0.75)
Osage County Foraker	10	1530CST		•	0	0	?	?	Hail (0.88)
Pawnee County 2 W Pawnee	10	1740CST			0	0	?	?	Hail (0.75)
	Ok	lahoma. Ti	rees were	uprooted n	iear (edar.	Spring	gs and	winds across northern and western minor damage to outbuildings was \$20,000 damage.
Carter County Ardmore	16	1900CST			0	0	?	?	Hail (1.00)
Carter County Ardmore	16	1900CST			0	0	4	?	Thunderstorm Wind
	Arc	dmore High	School G	ymnasium	suffe	ered v	wind c	lamage	s of two buildings. The roof of the which allowed water to enter the eral large trees were also uprooted.
Lincoln County 3 SE Meeker	17	1753CST			0	0	5	?	Lightning
	Lig		ck a home	and the re-					e structure. Damage was estimated
Pottawatomie County 1 SE Trousdale	18	1500CST		•	0	0	?	?	Thunderstorm Wind G52)
Payne County 4 S Stillwater	18	1604CST			0	0	?	?	Hail (0.88)
Payne County 8 E Stillwater	18	1610CST			0	0	?	?	Thunderstorm Wind
Craig County 9 SW Vinita	18	1740CST			0	0	?	?	Thunderstorm Wind (G52)
Craig County 7 W Bernice	18	1820CST			0	0	?	?	Thunderstorm Wind G52)
	The	understorm ge tree limb	winds resu s were dov	ılted in dar wned and s	nage evera	to a l I tree	oarn 8 s were	miles uproo	east of Stillwater. In Craig County
Grady County 6 E Tuttle	19	1400CST			0	0	?	?	Thunderstorm Wind (G70)
Pushmataha County 8 NE Moyers	19	1730CST		•	0	0	?	?	Hail (1.75)
Pushmataha County 8 WNW Antlers	19	1825CST			0	0	?	?	Hail (0.75)
Osage County 1 S Hulah	19	1425CST			0	0	?	?	Hail (1.00)
McIntosh County S Eufaula	19	1500CST			0	0	?	?	Hail (1.75)
McIntosh County S Eufaula	19	1500CST			0	0	?	?	Thunderstorm Wind
Haskell County Stigler	19	1510CST			0	0	?.	?	Thunderstorm Wind

		TIME			NO.	OF SONS	EST I	AATED AGE		SEPTEMBER 199
PLACE	D A E	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	סשמכרביי	4-50m00x10	CEOPA	CHARACTER OF STORM	

OKLAHOMA Cont'd

Thunderstorms produced damaging winds which downed trees and large limbs 6 miles east of Tuttle, in Eufaula and at Stigler. A barn was also destroyed 6 miles east of Tuttle. Golf ball-size hail at Eufaula resulted in damage to automobiles and to roofs. Damage is estimated by the National Weather Service at \$50,000.

Oklahoma County Countywide

20 2330CST

5 Flash Flood

Slow-moving thunderstorms resulted in 5 to 7 inches of rain across the county during the overnight hours. Forty trailers were evacuated from Oklahoma State Fairgrounds due to the flooding. A homeless shelter near Crutcho Creek was evacuated as six feet of water flooded the building. Damage to the roofs of the Oklahoma County Courthouse and Annex Building was estimated at \$500,000.

Haskell	County
Count	ywide *
Pittsbur	g County
Count	ywide
Latimer	County
Count	ywide

21	0900CST	0	0	?	?	Flash Flood
21	0930CST	0	0	?	?	Flash Flood
21	0930CST	0	0	?	?	Flash Flood

Thunderstorms resulted in up to 6 inches of rain that closed many county and rural roads for several hours. Highway 82 was closed for a short time 6 miles south of Stigler. Some residents in Kinta were threatened by rising waters and one person was trapped on an oil rig by rising waters. State Highway 2 north of the Pushmataha County line and Highway 82 between Red Oak and Talihina were closed.

Lincoln County Wellston Lincoln County	29	1415CST	0	0	· ?	?	Hail (0.88)
Wellston	29	1415CST	0	0	?	?	Thunderstorm Wind
Pottawatomie County McCloud	29	1430CST	0	0	?	?	Hail (0.75)
Lincoln County 3 E Chandler	29	1442CST	0	0	?	?	Hail (0.75)
Muskogee County Nr Ft Gibson	29	1815CST	0	0	?	?	Thunderstorm Wind

Thunderstorm winds downed trees in Wellston and near Fort Gibson. Minor roof damage was also reported in Fort Gibson, but damage estimates were not available.

OREGON

None reported.

PENNSYLVANIA, Eastern

Lac	kawanna	County
C-		•

3 NE Wilkes-Barre-Scranton (Arpt AVP)

1500EST 1600EST	•	0		Thunderstorm Wind Thunderstorm Wind (G60)

Thunderstorm wind gusts damaged trees and caused power outages in Scranton. Station WNEP-16, located northeast of the Wilkes-Barre-Scranton Airport, measured a wind gust to 69 mph. There was also some tree damage in that general area.

Susquehanna County Hop Bottom

02 1500EST

3 0 0 0 Thunderstorm Wind

Thunderstorm wind gusts damaged trees and caused power outages.

·				1		05	FOTTI	44.755	SEPTEMBER 1990
		TIME				OF SONS	ESTIN DAMA	AGE	
PLACE	D A E	LOCAL STANDARD	LENGTH OF PATH	WIDTH OF PATH	K 	Ŋ	-wm oo w o	೧೬೦೬%	CHARACTER OF STORM
1 22	È		(MILES)	(YARDS)	Ē	N JURIED	Ď	Š	STORM
					"	Ď	T Y		
					<u> </u>				
PENNSYLVANI	A, I	Eastern Co	ont'd						
Luzerne County Pittston	02	1600EST			0	0	3	0	Thunderstorm Wind
	Thu	understorm	wind gusts	s damaged	trees	and c	aused	power	outages.
Pike County Blooming Grove	02	1609EST			0	0	3	0	Thunderstorm Wind (G53)
	Thu	understorm	wind gusts	s reported	at ov	er 60	mph b	rought	down tree limbs.
Carbon County									
1 S Meckesville Lehighton	02 02	1723EST 1752EST			0	0	3	0	Thunderstorm Wind Thunderstorm Wind
	Thi Lel	understorm nighton. Sr	wind gusts nall hail w	s broke off as also rep	large ortec	trees I in L	south ehighte	of Me	ckesville and downed large limbs in
Lancaster County Gap	02	2100EST			0	0	5	0	Lightning
	A l ant	ightning-car	used fire d nd the loss	estroyed a s was estin	barn nated	near (at \$12	Gap and 20,000	d all its	s contents. The barn was used as an
Centre County					_	_			
State College State College Bealsburg	14 14 14	2150EST 2155EST 2200EST			0 0 0	0 0 0	? 3 4	0 0 0	Thunderstorm Wind (G55) Thunderstorm Wind (G55) Lightning
	anc rea	l numerous	trees werd me value a	e downed. Igain betwe	Theen 2	e first	63 m	ph gus	ennsylvania State University campus it was at 2150 EST and then gusts In nearby Bealsburg two cows and
Huntingdon County McAlveys Fort	14	2210EST			0	0	3	0	Thunderstorm Wind
	Th	understorm	wind gusts	s downed i	many	trees	near N	/IcAlve	ys Fort.
Huntingdon County	14	2220EST			0	0	?	0	Flooding
	He bet	avy rain cai ween 2220	used street and 2245	and basen EST.	nent f	loodii	ng in t	he Mo	unt Union area. Flooding occurred
Mifflin County	14	2230EST			0	0	?	0	Flooding
•	Bro	avy rain, as own Towns curred between	hips. Rot	ute 322 wa	as co	25 ho vered	urs, ca by 1	used st foot o	treet flooding in Menne, Union, and f water near Reedsville. Flooding
Lycoming County 2 N Williamsport	14	2310EST			0	0	3	0	Thunderstorm Wind
	Th	understorm ofs of house	wind gusts s in Loyal	s uprooted sock Town	trees iship.	, blew	down	fences	s, and tore shingles and spouting off
PENNSYLVANI	Α, ١	Western							
Somerset County 9 W Somerset	02				0	2	0	0	Hail (0.75) Lightning

Three-quarter-inch hail was reported at Hidden Valley. Two people were struck by lightning.

Hail (0.75) Lightning

				T	NO.	OF	ESTI	MATED		SEPTEMBER	1990
	D	LOCAL	LENCTH	LIINTH		OF SONS	EST IN				
PLACE	A E	STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	ביים משמכר בי	P & Opmort	OROP(N	CHARACTER OF STORM		
DENINGVI VANI	A 1	Voctorn C	'ont'd	*		<u> </u>	•			-	
PENNSYLVANI 8 SW Somerset	•	1630EST	ont u		0	0	0	0	Thunderstorm	Wind	
	Pov	wer lines we	ere downed	d by thund	ersto	rm wi	ind in 1	Rockw	ood.		
Westmoreland Count 12 S Greensburg	ty 02	1635EST			0	0	0	0	Thunderstorm	Wind	
	Tre	es were blo	wn down	on Route 3	31 in	Mt. I	Pleasan	ıt.			
Greensburg	02	1640EST			0	1	0	0	Thunderstorm Lightning	Wind	
	Pov	wer lines we	ere downed	d near Gre	ensbi	ırg. (One pe	rson w	as hit by lightnin	g.	
Erie County 6 NE Erie	05	0449EST			0	0	4	0 .	Lightning		
	Lig	htning start	ed a house	fire in H	arbor	Creel	k. Da	mage v	vas \$15,000.		
Clarion County 11 N Clarion	05	0810EST	•		0	0	?	0	Thunderstorm Lightning	Wind	
	A f	few large tre	es were d	owned in l	Frybı	irg. A	A roof	was hi	t by lightning.		
Erie County 20 SW Erie	06	1430EST		·	0	0	0	0	Thunderstorm	Wind	
	Pov	wer lines we	ere downed	d in Crane	sville						
Crawford County 14 W Meadville	06	1445EST			0	0	0	0	Thunderstorm	Wind	
	Pov	ver lines we	ere downed	d in Linesy	ville.						
Meadville	06	1505EST			0	0	0	0	Thunderstorm	Wind	
	Pov	wer lines and	d large tre	es were do	wned	in M	eadvill	e. An	asphalt truck was	blown on its	side.
15 NW Meadville	06	1505EST			0	0	4	0	Thunderstorm	Wind	
	At kno	Conneautvi ocked down	lle trees w One pur	ere downer np caught	ed an	d the rom t	pole li he lam	ghts and	nd gas pumps at	a gas station	were
5 E Meadville	06	1515EST			0	0	0	0	Thunderstorm	Wind	
	Lar	ge trees and	d power li	nes were d	owne	d in I	French	town.			
Butler County 13 NW Butler Butler	06	1605EST			0	0	3	0	Funnel Cloud Lightning		
·	A f	unnel cloud aze. Loss e	was repor estimated a	ted over Po t \$3,000.	orters	ville.	Light	ning sti	ruck a home in Bu	tler setting ar	ı attic
Butler	06	1610EST			0	0	0	0	Thunderstorm	Wind	
	Tre	es were dov	wn in Butl	er.							
19 NW Butler	06	1610EST- 1612EST	0.1	40	0	0	0	0	Tornado (F1)		•

Huge trees were twisted off in Harrisville.

SEPTEMBER 1990

	Ι			<u> </u>	NO.	OF	ESTI	MATED		SEPTE
	0	TIME	LENGTH	UINTH	PER	OF SONS		AGE C		
PLACE	Đ	STANDARD	PATH (MILES)	WIDTH OF PATH (YARDS)	Î	QM&CL&		CEOPN	CHARACTER OF Storm	
ENNSYLVANL	A 1	Vestern C	'ont'd	•	1			······································		
awrence County	06	1628EST	ont u		0	0	0	0	Thunderstorm W	ind
	Tre	es were do	wned throu	ighout the	coun	ty due	e to the	underst	orm winds.	
erango County Franklin	06	1630ESST	Γ		0	0	0	0	Thunderstorm W	ind
	Tre	es and pow	er lines w	ere downed	i in F	rankl	in.			
leaver County 7 SE Beaver 8 SW Beaver	06	1630EST			0	0	. 0	0	Thunderstorm W	ind
	Tre	es and pow	er lines we	ere downed	l in E	Baden,	, Midla	and, an	d Center.	
Allegheny County 9 SE Plt	06	1630EST			0	0	0	0	Thunderstorm W	ind
	Pov	wer lines we	ere downed	d in South	Faye	tte.				
15 NE Pit	06	1652EST			0	0	0	0	Thunderstorm W	ind
	Pov	wer lines we	ere downed	d in Wexfo	ord.					
13 E Pit	06	1700EST			0	0	0	0	Thunderstorm W	ind
	Thi	ree-foot tree	es were do	wned in N	orth l	Hills.		-		
ndiana County 15 SW Indiana					•					
14 SE Indiana	06	1700EST			0	0	0	0	Thunderstorm W	ind
	Lar	ge trees we	re downed	l in Conem	augh	and l	Buffing	gton To	ownships.	
Vestmoreland County	06	1700EST			0	0	0	0	Thunderstorm W	ind
-	Tre	es were do	wned throu	ighout the	coun	ty.				
Vashington County	06	1700EST		-	0	0	0	0	Thunderstorm W	ind
	Tre	es were do	wned throu	ighout the	coun	ty.				
Allegheny County 13 N Plt	۸4	1710EST			0	0	0	0	Thursdonatons W	:1
15 N PIL	06 T=0	es were do	unad in D	radford W	_	U	U	U	Thunderstorm W	ına
Vashington County	116	es were do	whed in bi	rautoru we	oous.					
Washington	06	1712EST			0	0	0	0 -	Funnel Cloud	
	A f	unnel cloud	l was sight	ed over W	ashin	gton.				
efferson County 15 SE Brookville	06	1714EST			0	0	0	. 0	Thunderstorm W	ind
ZZ ZIVZKIIIV		ver lines we	ere down i	n Punxsut:	_	-	J	-		_
Ilegheny County	·									
24 E Pit	06	1730EST			0	0	4	0	Heavy Rain	
	A 5	Sears store i	roof collap	sed in Mo	nroev	ille fi	om th	e weigl	nt of accumulated ra	ain.

			TIME			NO. PEŘ	OF SONS	ESTIN DAMA	MATED NGE		SEPTEMBER	1990
1	PLACE	D A	STANDARD Western C	CONT'd	WIDTH OF PATH (YARDS)	KILLED	Om∞C.≥.	~- .00 m0	೧ಹ೦೯%	CHARACTER OF STORM		
		•										
,	Westmoreland Count 19 SW Greensburg	y 06	1730EST			0	0	?	0	Lightning		
		Αŀ	ouse was st	ruck by lig	ghtning in	Mon	essen.	Seve	re dan	nage occurred from	the ensuing	fire.
	11 E Greeensburg	06	1730EST			0	0	?	0	Lightning		

Fire damaged a school in North Huntingdon struck by lightning. The roof and hallway ceiling were damaged. 11 NE Greensburg 06 1730EST Funnel Cloud A funnel cloud was sighted over New Alexandria. 12 NW Greensburg 06 1730EST-0.2 40 1735EST 0 0 0 Tornado (F1) Trees were lifted onto roads in Murrysville. 12 NE Greensburg 06 1740EST 1742EST 0 Tornado (F1) A tornado touched down briefly between New Alexandria and Derry. 9 E Greensburg 06 1743EST Funnel Cloud A funnel cloud was sighted between Lloydsville and Latrobe. 06 1750EST Indiana County Funnel Cloud A funnel cloud was seen over wooded areas. Westmoreland County 1800EST 0.1 0 0 16 NE Greensburg 06 0 Tornado (F1) A tornado touched down briefly downing trees near Bairdstown. Armstrong County 06 1811EST 0 8 SW Kittanning Thunderstorm Wind Power lines were downed in south Buffalo Township. Greene County 14 W Waynesburg-12 E Waynesburg 06 1815EST Thunderstorm Wind Trees were downed in Wind Ridge and Carmichael. **Fayette County** Uniontown 06 1820EST Thunderstorm Wind 0 Trees were downed in Uniontown. Westmoreland County 06 1820EST Thunderstorm Wind Trees and power lines were downed throughout the county. Somerset County 8 SW Somerset 6 N Somerset 06 1830EST 0 Thunderstorm Wind

Trees were downed in New Centerville and Sipesville.

·			· · · · · · · · · · · · · · · · · · ·	1	T 1/2	05	FOTIL	14750	SEPTEMBER 1990
		TIME			PER	SONS	ESTIM DAMA	AGE	
PLACE	DA)-E	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED		~—XXMT0()XT0	റംവം	CHARACTER OF STORM
PENNSYLVANIA		Vestern C	'ont'd		_				
Erie County	-		Ont u						
12 SW Erie		1935EST			0	0	0	0	Hail (0.75)
	Thi	ree-quarter-	inch-size h	ail fell at '	Waln	ut Cre	ek acc	ess in	Fairview.
5 SW Erie	06	1945EST			0	0	2	0	Lightning
	Tw	o Millcreek	homes we	ere struck	by lig	ghtnin	g with	little	damage.
14 SW Erie	06	1950EST		·	0	0	0	0	Hail (0.75))
	Th	ree-quarter-	inch-size h	ail was rep	ortec	1 2 mi	iles so	uth of	Fairview.
Erie County Erie	06	1950EST	•	:	0	0	0	0	Hail (0.75) Thunderstorm Wind
	Dir	ne-size hail	was repor	ted at Erie	. Tr	eės an	d pow	er line	es were also downed.
Crawford County 16 NW Meadville	06	2005EST			0	0	0	0	Hail (0.75)
	Thi	ree-quarter-	inch-size h	ail was rej	ortec	l at C	onneau	itville.	
Crawford County 5 W Meadville	06	2015EST			0	0	?	0	Lightning
	Lig	htning stru	ck the Ver	mont Tow	nship	Gee	Bee sto	ore roo	of setting it ablaze.
Erie County 4 E Erie	06	2030EST			0	0	4	. 0	Flash Flood
	car	s were stran	ided with v	vater over	roof t	lops.	A nari	ow br	four Mile Creek closed roads. Three idge on Four Mile Creek was picked ad major structural damage.
Lawrence County	06	2115EST			0	0	0	0	Thunderstorm Wind
	Tre	es were do	wned throu	ighout the	coun	ty due	e to the	unders	torm wind.
Washington County 4 NE Washington	06	2315EST	ī.		0	0	0	0	Flash Flood
• .	Flo	oding occu ter was kne	rred at Do	naldsons (Route 19.	Cross	roads	and ir	north	Strabane. Roads were closed and
16 NW Washington	06	2340EST			0	0	0	0	Flash Flood
	Flo	oding occu	rred in Bu	rgettstown					
16 NW Washington	07	0105EST			0	0	0	0	Flash Flood
	The	ere was floo	oding in A	vella and 1	100 e	vacual	tions a	long C	Cross Creek.
Butler County 12 NW Butler	07	0130EST			0	0	4	0	Lightning
			truck by li 20,000, co	ghtning ar ntents and					completely destroyed, and loss was
Allegheny County 24 E Pit	07	0200EST		•	0	0	0	0	Flash Flood
			~		~ .				

A small creek overflowed and the flood protection wall destroyed in Monroeville.

	1	ī		T	1				***************************************	SEPTEMBER 1990
	ľ	TIME	i.		PER	OF SONS	ESTIM DAMA	GE		
PLACE	D A E	LOCAL	LENGTH OF PATH	WIDTH OF PATH	K	I N	R	NTORO	CHARACTER OF	
·	É	STANDARD	(MILES)	(YARDS)	L E D	Omac	- 000 mod	PS	STORM	
						Ď	Y			
					*			·		
PENNSYLVANI	A, \	Western C	ont'd							
Washington County 6 N Washington	07	0645EST			0	0	5	0	Flash Flood	
J	Fiv	e-and one-h	alf inches	of rain bro	ought	10 fe	et of w	ater o	n Pike Street in H	ouston. A fire on
	Ma	in Street wa	is caused b	y flooding	g on (Charti	ers Ru	n and	Plum Creek.	ouston. A fire on
16 NW Washington	07	1250EST-								
4 N Washington	-	1600EST			0	0	6	0	Flash Flood	
	Flo	oding continuents	nued in Av	ella, Hous	ton, a	and Bi	rownste ehicles	own.	One hundred evac	uees were not able I by 3 to 4 feet of
	wai	ter. This w	as the wor	st flooding	g in F	lousto	on in 1	5 year	s.	2 0
Crawford County 17 NW Mead	09	1200EST			0	0	0	0	Flash Flood	
17 IVV Wicad			k overflow	ed ite hanl	_	_	_			flooded roadways.
Cambria County	Coi	illicaut Cicc	K OVEITIOW	ca its bailt	cs by	1102	. Icci a	Com	icautvine causing	nocaeu roadways.
9 N Ebensburg	12	1845EST			0	0	0	0	Flash Flood	
	One	e foot of wa	iter floode	d Route 21	19 in	Carro	ltown.			
11 N Ebensburg	12	1940EST			0	0	0	0	Flash Flood	
	Ro	ute 219 was	flooded n	ear Foxbu	rg.					
Fayette County	12	2000000000			0	0	0	0	Flash Flood	
17 NW Uniontown			onton in E	Savette Car	_	_	_	U	riasn riood	
14 NW II		shopping o	enter in r	ayette Cen				^	Pl 1 Pl . 1	
14 NW Uniontown			11 .	1.1	0	0	0	o 	Flash Flood	D 4 001
E in Count	1 he	ere was sma	ii stream a	ınu baseme	ent flo	oaing	g in Jei	nerson	Township along	Koute 201.
Erie County Erie	14	1749EST			0	0	0	0	Thunderstorm	Wind
	Wi	nd gusted to	60 mph c	luring a th	unde	rstorm	on th	e east	side of Erie.	
Crawford County		1005555			_		•		na t	t
7 N Meadville		1805EST			0	0	0	0	Thunderstorm '	
	Wii	nds gusted t	o 60 mph	during a t	hunde	erstori	m with	powe	r lines down in Sa	negertown.
Mercer County 9 W Sharon										
10 NW Sharon	14	1810EST			0	0	0	0	Thunderstorm ' Hail (0.75)	Wind
	The	e west side (of Sharpsv	ille had 0.	75-in	ch hai	il. Tre	es we	re downed in Gre	enville.
Erie County			-							
20 SE Erie	14	1826EST			0	0	0	0	Thunderstorm '	Wind

Several large trees were downed across Route 97 in Union City.

Washington County 6 N Washington

14 1830EST

0 0

0

0

Thunderstorm Wind

Trees and power lines were downed in Houston and Chartiers Townships.

SEPTEMBER 1990

		TIME			NO. PER	OF SONS	EST 11	MATED AGE	<u></u>	SEPTEMBER 1990
PLACE	DAG	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	K-L-HD	OMBC-Z-	-контори-	റയായ	CHARACTER OF STORM	
PENNSYLVANI	A, \	Western C	Cont'd							
Crawford County 9 NE Meadville	14	1833EST			0	0	0	0	Thunderstorm V	Vind
	Pov	wer lines we	ere downe	d near Wo	odcoc	k Da	m.			
Erie County 29 SE Erie	14	1843EST			0	0	3	0	Thunderstorm V	Vind
	Αı	tree was dov	wned on a	trailer in (Corry					
Lawrence County New Castle	14	1845EST			0	0	0	0	Thunderstorm V	Vind
	Tre	ees were do	wned in N	ew Castle.						
Beaver County 17 SW Beaver	14	1910EST			0	0	0	0	Thunderstorm V	Vind
	Tre	ees were do	wned in Ra	accoon Sta	te Pa	rk.				
Butler County Butler 13 SW Butler	14	1910EST			0	0	0	0	Thunderstorm V	Vind
	Tre	ees were do	wned near	Butler, P	ower	lines	were o	downed	in Zelienople.	
Washington County		,40		200001					·	
11 N Washington	14	1921EST			0	0	0	0	Thunderstorm V	√ind
	Wi	nd gusted to	58 mph a	at Cecil.					٠	
Allegheny County 21 NE Pit 17 SE Pit	14	1929EST			0	1	0	0	Thunderstorm W Lightning	Vind .
	bas	wer lines and sement flood gpole in Sta	ding in Pl	easant Hill	in Oal ls. A	kmon Man	t, Plea was	sant Hi struck	lls, and South Park by lightning while	with some minor standing near a
Westmoreland County	14	2000EST			0	0	0	0	Thunderstorm V	Vind
	Tre	ees were do	wned in ea	stern West	tmore	land	County	у.		
Armstrong County 15 S Kittanning	14	2000EST			0	0	0	0	Thunderstorm V	Vind
	Tre	ees and pow	er lines w	ere downe	d in F	Parks	and K	iskimin	etas Townships.	
Westmoreland Count 15 E Greensburg	ty 14	2030EST			0	0	0	0	Thunderstorm V	Vind
•	Tre	ees were do	wned in Li	igonier.					. .	•
Indiana County	14	2030EST			0	0	0	0	Thunderstorm V	Vind
	Tre	ees were do	wned over	the entire	coun	ty.				
Jefferson County 16 NE Brookville	14	2035EST			0	0	0	0	Thunderstorm V	Vind

Trees were downed in Brockway.

PLACE

TIME

LOCAL
OF DAMAGE

D LOCAL
OF DAMAGE

PERSONS
DAMAGE

PATH
OF DATH

	<u> </u>				Ď	Ϋ́		
PENNSYLVANI	A, \	Western Cont'd						
Armstrong County 17 S Kittanning	14	2042EST	0	r	0	0	0	Thunderstorm Wind
	Tre	es and power lines were	downed in	Ki	skin	inetas	s Town	ship.
Washington County 3 N Washington	14	2050EST	. 0		0	0	0	Thunderstorm Wind
	Tre To	ees were downed in Wawnships.	ashington,	Cai	nons	burg,	Houst	on, North Strabane, and Chartie
Cambria County 5 SE Johnstown	14	2130EST	0		0	0	0	Thunderstorm Wind
	Pov	wer lines and trees were	downed in	Ric	hlan	d Tov	wnship.	
Clearfield County Clearfield	14	2130EST	0)	0	0	0	Thunderstorm Wind
	Tre	es were down in Clearfi	eld.					
Blair County 18 S Altoona	14	2230EST	0	ı	0	4	0	Thunderstorm Wind
· .	Par off	ts of two barn roofs were southeast of Curryville.	lifted off.	Α	bloci	k wall	was de	emolished and a silo roof was blow
RHODE ISLANI)							
Washington County	15	0900055						

Washington County	15	0800EST- 0915EST	• .		0	4	0	Lightning
-------------------	----	---------------------	-----	--	---	---	---	-----------

Thunderstorms with heavy rain left about 1.20 inches of rain in about 1 hour while lightning knocked out power to about 700 electric customers.

SOUTH CAROLINA

SCZ006

Aiken County	02	Unknown	1	0	0	0	Heat
	A 2	3-year-old man died of exposure	to s	sun and	heat is	n Aikei	n County. (M230)
Charleston County Folly Beach Orangeburg County	03	1730EST	0	0	4	0	Thunderstorm Winds
1 SW Orangeburg	03	1830EST	0	0	0	0	Funnel Clouds
Orangeburg	03	1830EST	0	0	?	?	Hail (0.75)
Rowesville	03	1830EST	Ō	Ö	0	0	Thunderstorm Winds
Bowman	03	1900EST	0	0	?	0	Thunderstorm Winds
Branchville	03	1900EST	0	0	?	0	Thunderstorm Winds

In Orangeburg County, two funnel clouds were sighted along U.S. Hwy. 301, 1 mile southwest of Orangeburg. Dime-size hail was reported in Orangeburg. In Rowesville, Bowman, and Branchville, tree limbs and power lines were downed by thunderstorm winds. At Folly Beach, Charleston County, thunderstorm winds broke or damaged 53 trees, and bent 30 others 30° from vertical.

SEPTEMBER 1990

		TIME			NO. PER	OF SONS	EST I	MATED NGE		SEPTEMBER	1990
PLACE	D A E	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KTLLIMO	סשמכרב⊷	4-com 100200	CECOEVO	CHARACTER OF STORM		

SOUTH CAROLINA Cont'd

Orangeburg County Orangeburg	08	1430EST	0	0	?	?	Thunderstorm Winds
Kershaw County Camden Countywide	08 08	1445EST 1430EST-	0	0	?	?	Hail (1.00)
•	V	1530EST	0	0	?	?	Lightning
Oconee County Walhalla	08	1657EST	0	2	3	0	Lightning

Lightning struck and injured two brothers, ages 72 and 56, in Walhalla. The bolt also killed a coon hound. The lightning struck a pine tree as the brothers walked beneath it. Both men were thrown to the ground by the bolt. It stripped the bark off the tree for 60 feet to within 7 feet of the ground, and leaped to a tin shed to which the dog was tied. Hail the size of ice cubes was reported in Camden, and numerous lightning strikes caused fires throughout Kershaw County. In Orangeburg, the stadium at South Carolina State College was damaged by thunderstorm winds. One section of the south wall of the stadium, constructed of aluminum, was blown away. Also on the campus, a satellite dish was pulled out from the concrete bed to which it was bolted.

Pickens County Norris	08	PM	0	0	?	0	Lightning
Horry County Loris	08	1738EST	0	0	?	0	Lightning
Abbeville County Due West York County	08	1825EST	0	0	?	?	Hail (0.75)
Northern and Eastern Sections	08	1830EST	0	0	?	0	Thunderstorm Winds Lightning
Rock Hill	08	1830EST	0	0	?	0	Hail (0.75) Flooding
York County Rock Hill	08	2011EST	0	0	?	?	Hail (0.75)
Eastern Sections	80	2045EST	0	0	?	?	Urban Flooding Hail (0.75) Thunderstorm Winds Urban Flooding
Greenville County Countywide	08	2130EST	0	0	?	0	Lightning
Spartanburg County Spartanburg	08	2120EST-	0	0	2	0	
H in Garage		2140EST	U	0	3	0	Thunderstorm Winds Hail (1.00) Lightning
Union County Countywide	08	2200EST	0	0	?	0	Lightning

One area of thunderstorms moved through southern sections of the upstate early in the evening, producing large hail at Due West. Another band of storms developed rapidly late in the evening causing considerable lightning-related problems. Some wind damage was reported in Spartanburg, along with large hail. Gusty winds and lightning were reported from Union County. A thunderstorm knocked out a main power transformer in Norris, leaving much of the town without electricity for several hours. Small hail was reported in Lee County. In Loris, lightning knocked out power to the Loris Community Hospital after striking a transformer. In York County, thunderstorm winds knocked down trees and started minor fires. Dime-size hail was reported in Rock Hill. Hail of unknown size was reported in Fort Mill. In Rock Hill, urban flooding occurred in the Rock Hill Mall area along Cherry Road, and on Celanese Road. Some vehicles were stranded in the high water.

Greenville County Simpsonville	10	1750EST	(0	0	4	0	Thunderstorm Wind (G55) Hail (1.50)
								11411 (1.30)

		TIME			NO. PERS	OF SONS	EST IN	MATED AGE		SEPTEMBER	1990
PLACE	DATE	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	Kirrimo	Om20	4-120m	CACOA	CHARACTER OF STORM		

		(MILES)	(YARDS)	Ď	D E D	- F	\$	STOKE!
SOUTH CAROL	LINA Cont'd							
Aiken County Aiken	10 PM		·	0	0	?	0	Lightning Thunderstorm Winds
	limbs and sig	ns were da ka tree at	måged and Havne Ave	i son enue a	ne con and Tr	structi afalga	ion ma r Stree	ted large hail and some minor wind it. There was considerable lightning; terial was blown about. In Aiken, it and traveled down power lines into estorm winds in Aiken.
Marlboro County Bennettsville	11 1514EST			0	0	. 2	0	Lightning
	Lightning ign causing an est	ited insulat imated \$50	ion materi 0 in dama	al ins ge.	ide th	е Тоо	tal Am	erican plant on S.C. Highway 385,
Oconee County Walhalla area	13 0600EST 0800EST			0	0	?	?	Flash Flooding
	Nearly 6 inch Walhalla. Sev area. The coo	es of rain veral bridge perative ob	in a short es were cor server repo	time vered orted	cause and n a total	d brie jumero of 7 i	f, but ous sma nches c	impressive, flooding in and around all streams flooded roads around the of precipitation on the 13th and 14th.
SCZ001-002-003- 004-005-006-007 Statewide	01- 30			0	0	0	?	Drought
	m 1		1006		1.1			

The driest September since 1986 continued the drought in South Carolina that began in April 1990. It was the driest September since record keeping began in 1738 in downtown Charleston, with 0.18 inch of precipitation reported. The previous record at that location was set in 1901.

SOUTH DAKOTA

Meade County						
Sturgis	01 1122MST	0	0	0	0	Hail (0.75)
Meade County Tilford City Harding County	01 1135MST	0	0	?	?	Hail (1.75)
Buffalo	01 1549MST	0	0	?	0	Thunderstorm Wind (G86)
Harding County Reva and Bison	01 1635MST	0	0	2	?	Hail (2.00)
Perkins County Sorum	01 1655MST	0	0	5	?	Hail (4.00)
	This series of severe thunderstorms damage to houses as well as farm b	dum uildir	ped hu	ige ha	il whic	ch caused a good deal of structural
Meade County Red Owl	02 1430MST	0	0	?	?	Hail (0.75)
Haakon County Philip	02 1545MST	0	0	4	?	Thunderstorm Wind

This thunderstorm produced straight-line winds strong enough to blow the roof off an outbuilding and caused approximately \$50,000 damage to the farm. Debris from the wreckage was found up to two miles away.

TIME

NO. OF PERSONS SEPTEMBER 1990

	PLACE	DA	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	סששט		CAOPA	CHARACTER OF STORM	
-	TENNESSEE										•
1	Monroe County Madisonville	05	1800CST			0	0	3	0	Thunderstorm W	/ind
			understorm eetwater.	winds des	troyed an	unfin	ished	two-st	ory lo	g house between M	Madisonville and
I	Hamilton County Ooltewah	07	1420CST	•		0	0	2	0	Thunderstorm W	'ind
		Nu	merous tree	s were dov	wned and s	ome	shingl	les blo	wn off	a house.	
(Cheatham County Bethel	07	1520CST			0	0	2	0	Thunderstorm W	'ind
	÷	A f	few trees we	ere downed	l and powe	er pol	es sna	apped i	n Beth	el.	
ľ	Montgomery County Clarksville	07	1530CST			0	0	2	0	Thunderstorm W	ind
		Hig	gh winds de	stroyed a 1	metal shed,	hurl	ing a	rafter	into a	propane tank.	
l	McNairy County Selmer	07	1830CST			0	0	3	0	Thunderstorm W	ind
	• •	A ti		n downbur	st ripped th	ne roo	of off	a truck	shop	building and knock	ed down several
F	Hancock County Sneedville	07	1900CST			0	0	2	0	Thunderstorm W	inds
		Tre	es were blo	wn down,	power line	es bro	oken,	and a	couple	of roofs taken off	barns.
ł	Bedford County Shelbyville	07	2130CST			0	0	3	0	Thunderstorm W Lightning	inds
		Tre	e limbs fell	on some p	power lines	s and	lightr	ning ki	lled se	ven cows near Dea	son.
S	Sumner County	10	1230CST			0	0	2	0	Hail (0.75) Thunderstorm W	ind
		Nu	merous tree:	s were top	pled in the	Gall	atin a	nd Por	tland a	reas and hail was i	reported.
N	Macon County Western Macon County	10	1305CST			0	0	0	0	Hail (1.75)	
ł	lamilton County NW Hamilton County	10	1320CST			Ò	0	0	0	Hail (1.00)	
(Cumberland County Southeastern Cumberland						,	_			•
Ţ	County Bradley County	10	1405CST			0	0	0	0	Hail (0.75) Thunderstorm W	ind
1	2 SE Georgetown		1430CST			0	0	0	0	Hail (0.88)	
		Corr	ara thundar	ctorme on	the oftenne	A	Fitha 1	I∩th ∞u	mblad	through north of or	otom Tommoroo

Severe thunderstorms on the afternoon of the 10th rumbled through parts of eastern Tennessee causing mainly tree damage from gusty winds and hail up to the size of golf balls.

	TIME				NO. PER	OF SONS	EST II	AGE		SEPTEMBER	177
PLACE	DATE	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	DEMOCE IN	PROPERTY	CROPA	CHARACTER OF STORM		

				1			Υ	ļ	
TENNESSEE Co	nt'd							•	
Shelby County Memphis	11	1800CST			0	0	2	0	Thunderstorm Wind
	A r	nicroburst i pled a carp	n the midt ort structu	own sectio	n of t	he cit	y snap concre	ped twate.	o large trees, a power line pole, and
Davidson County Nashville	11	1830CST			0	0	2	0	Thunderstorm Wind
	Thu	understorm	winds dov	vned some	trees	and p	ower	lines.	
Knox County Knoxville	14	2130CST			0	0	4	0	Thunderstorm Wind
·	25 that con	residentia[] t were blow npletely des	nomes in t in off roof stroyed. T	he northern is and wind The powerf	n fring lows t ul win	ges of hat w nds bl	the clere broken	ity. M oken o car int	nree-quarter miles in width, damaged lost of the damage involved shingles but. Several small outbuildings were o a tree and two others into a field trees and power poles were downed.
TEXAS, Norther	n								
Coryell County 10 NE Copperas Cove	01	0500CST			0	0	4	. ?	Thunderstorm Wind
	Stre	ong winds naged a bar	uprooted n.	several tre	æs, li	fted:	shingl	es off	the roof of several buildings, and
Lampasas County Rumley	01	0514CST			0	0	4	?	Thunderstorm Wind
	Stro fen	ong winds one, and the	destroyed window o	a couple of a home.	f outl	ouildi	ngs, d	amage	d the roof of a home, blew down a
Erath County Dublin	01	1045CST			0	0	3	?	Thunderstorm Wind
	Αd	downburst o	lamaged a	portion of	a sch	ool r	oof.		
Brown County 1 SE May	01	1400CST			0	0	4	?	Thunderstorm Wind
	Str	ong winds i	aprooted s	everal tree	s and	lifted	the re	oof off	a couple of barns and homes.
Coleman County Coleman	01	1430CST			0	0	4	?	Thunderstorm Wind
	A d a h	lownburst o ay barn, an	verturned d blew do	a mobile h wn several	ome, trees	lifted	off the	e meta	l roof of a storage building, damaged
McLennan County Waco	01	1430CST			0	0	3	?	Thunderstorm Wind

01 1436CST Thunderstorm Wind

A downburst blew down several power poles and trees and the chimney of seven apartment units.

Bosque County Clifton

· · · · · · · · · · · · · · · · · · ·			ı	1	1 110	0.5	FOTU	MATER		_ SEPTEMBER	1990	
		TIME			PER	SONS	DAM	MATED AGE				
PLACE	D	LOCAL STANDARD	LENGTH OF PATH	WIDTH OF PATH	I I	Ņ	R	COCO	CHARACTER OF			
PLACE	Ė	STANDARD	(MILES)	(YARDS)	K-L-L-WD	OMMO	ס איטס שאר	P S	STORM			
					D	D	R					
		<u> </u>	L	1		1	l <u>'</u>					
TEXAS, Norther	n Co	ont'd				,						
Hamilton County Hamilton	01	1545CST			0	0	3	?	Thunderstorm V	Vind		
	Αc	lownburst l	ifted the re	oof off a sl	hed a	nd ble	w larg	ge tree	limbs onto power	lines.		
Tarrant County Arlington	08	1140CST			0	0	5	?	Lightning			
	Lightning ignited a fire to a home in Arlington where \$100,000 in damage occurred.											
Ellis County									.,			
Ike	08	1442CST			0	0	3	?	Thunderstorm V	Vind (G56)		
•	Αc	lownburst b	lew down	several tre	ees.							
Johnson County 1 N Alvaredo												
1 N Alvaredo	08	1445CST			0	0	4	?	Thunderstorm V	Vind		
	A d		fted the ro	of off a bui	ilding	, dest	royed :	several	outbuildings, and	blew down p	ower	
Red River County	11	1755CST- 2100CST			0	0	3	?	Flash Flooding			
	Hea	avy rains re	sulted in t	the flash fl	oodir	ng of	U.S. I	Highwa	y 271 between Dearket Road 410 at	port and Ru	igby,	
	rar	m to Marke	et Koad 15	002 near Bi	iossoi	n, and	ı rarn	1 to Ma	irket koad 410 at	Mustang Cre	ек.	
TEXAS, Souther	n											
Maverick County Eagle Pass	01	?			0	0	?	?	Thunderstorm V	Vind (?)		
	Hig	gh winds fro	om a thunc	derstorm sr	nappe	d a ut	ility p	ole off	in Eagle Pass.			
Cameron County												
Brownsville '	01 01	1300CST 1300CST			0	0	?	?	Hail (1.75) Thunderstorm V	Vind (?)		
	Hig ove	gh winds from	om a thund Brownsvill	derstorm u e. Falling	proot trees	ed tre	es, do	wned f t least	ences, damaged av	vnings, and d downed p	blew	
	line	es. A few nolished. T	palm trea	es were sr	nappe	d in	two.	One r	nobile home was	turned over	and	
Burnet County Spicewood	01	1240CST			0	0	?	?	Hail (0.75)			
Wilson County	01	1335CST			0	0	?	?	Hail (1.75)			
,			hail fell in	the north	ern n				petween Sutherland	l Springs an	d La	
		mia.	,44		P	01				- F		
Comal County Canyon Lake	01	1400CST			0	0	?	?	Thunderstorm V	Vind (?)		
		gh winds from es downed p			ew ov	er tre	es in t	he Can	yon Lake area. So	ome of the fa	lling	
Robertson County	01	1430CST			0	0	?	?	Thunderstorm V	Vind (?)		

High winds from a thunderstorm blew a home off its foundation in Hearne.

NO. OF ESTIMATED

SEPTEMBER 1990

		TIME			PER	PERSONS		AGÉ	
PLACE	DA	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	OMMCC2+	D. OCO D. D. O.	CKOFN	CHARACTER OF STORM
TEXAS, Southe	m C	ont'd							
Bexar County San Antonio	01	1435CST			0	0	?	?	Hail (0.75)
	Th	ree-quarter-	inch-size h	ail was re _l	portec	l over	the no	ortheas	tern part of the city of San Antonio.
Atascosa County	01	1450CST			0	0	. ?	?	Thunderstorm Wind (?)
	Hi	gh winds fro	om a thunc	lerstorm u	proot	ed tre	es east	of Ple	easanton.
Bexar County Randolph AFB	01	1455CST			0	0	?	?	Thunderstorm Wind (G50)
Lee County Giddings	01	Afternoon	l		0	0	5	?	Thunderstorm Wind (?)
	dov	gh winds frowned in the its foundati	area. Seve	lerstorm beral barns	lew t lost th	he roc neir ro	of off ofs.	a home Near D	e just east of Giddings. Trees were ime Box, a mobile home was blown
Zavala County Crystal City	01	1810CST			0	0	3	?	Thunderstorm Wind (?)
	Hig	gh winds fro	om a thund	lerstorm u	proot	ed tre	es and	down	ed telephone poles in Crystal City.
Liberty County	05	1650CST			0	0	?	?	Thunderstorm Wind (?)
,		gh winds fr inty.	om a thur	nderstorm	blew	over	trees	onto r	oadways at several locations in the
Orange County Vidor	05	1700CST			0	0	, 5	?	Thunderstorm Wind (?)
	Hi lar	gh winds fro ge tree fell o	om a thund on a home a	lerstorm da and severe	amage ly dar	ed one naged	home it. O	and une busi	prooted several trees in Vidor. One ness lost a front plate glass window.
Jefferson County Beaumont	05	1730CST			0	0	5	?	Thunderstorm Wind (?)
•	Δ.	covere thun	lergtorm m	noved acro	ee the	city.	of Rea	umont	producing very strong winds. The

A severe thunderstorm moved across the city of Beaumont producing very strong winds. The high winds downed trees and damaged buildings. Roofs were blown off a furniture store and a restaurant. Another building was blown off its foundation. Falling trees downed power lines.

Harris County
Houston

05 1800CST
05 1800CST
05 1800CST
1 0 7 ? Thunderstorm Wind (?)
Lightning

High winds from a thunderstorm downed trees in Humble. Some of the falling trees downed power lines. Lightning struck and killed a boy on the north side of Houston. (M100)

Milam County
3 N Cameron 08 2105CST 0 0 4 ? Thunderstorm Wind (?)

High winds from a thunderstorm blew the roof and a carport off a home 3 miles north of Cameron.

 Caldwell County

 10 N Lockhart
 09 1835CST
 0 0 ? ? Hail (1.75)

 Bexar County
 10 1600CST
 0 0 4 ? Thunderstorm Wind (?)

High winds from a thunderstorm ripped about 150 feet of roofing material off a row of ministorage sheds on the north side of the city of San Antonio.

SEPTEMBER 1990

		TIME			NO. PER	OF SONS	EST!!	MATED AGE		SEPTEMB
PLACE	D A E	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	1 X-JUREO	4-120 m 40 20 4	CROPA	CHARACTER OF STORM	

TEXAS, Southern Cont'd

Val Verde County 10 SE Pandale

10 Evening

0 0 ?

Hail (0.75)

Medina County

11 1125CST

Short Narrow

0 0

Tornado (F0)

A tornado touched down briefly in an open field in the eastern part of the county between Rio Medina and Loop 1604.

O

Webb County Laredo

12 1900CST

0 0 ?

? Flash Flooding

Between 4 and 5 inches of rain fell over portions of the city of Laredo. Serious street flooding resulted with water rising into some homes.

Kimble, Menard Counties

17 0130CST

0 0 5

Flash Flooding

Heavy rains produced flash flooding mainly along the San Saba and Llano Rivers. The bulk of the flood waters was runoff from heavy rains that fell in counties to the west. Several roads were closed in the area. The San Saba River at Menard crested at 18.7 feet which was above flood stage. The Llano River crested near 30 feet at Roosevelt. The stage was 24.6 feet at Junction at 1400 CST on the 17th.

Val Verde County

17-18

0 0 ?

Flash Flooding

On the morning of the 17th, in the northern part of the county, flooding occurred along the Devils River. The flooding was mainly from heavy rains that fell in bordering counties just to the north of Val Verde County. High water closed main highways in the area. Texas Highway 163 at Juno had 5 feet of water covering the roadway. Roads were still covered with water the next day on the 18th.

Williamson County Granger

17 1400CST

0 0

Thunderstorm Wind (?)

High winds from a thunderstorm destroyed the roof of an outbuilding on a farm east of Granger. One piece of farming equipment was rolled and demolished.

?

?

Val Verde County

22-

0 0

Flash Flooding

Heavy rains over the eastern part of the county produced flooding of low-water crossings. Flooding began on the morning of the 22nd. Flood waters from the Devils River resulted in closing of main highways in the area. The river rose 6 to 7 feet above the Bakers Crossing bridge. Loma Alta reported 2.87 inches of rain in a 1 hour period ending at 1015 CST on the 22nd. Flooding continued in the area through the 23rd.

Webb County 12 S Laredo

23 0500CST

0 1 5

Flash Flooding

During the early morning hours a severe flash flood hit the small community of Rio Bravo 12 miles south of Laredo. A torrential downpour of up to 6 inches of rain or more fell in a very short period of time. Over 50 persons had to be evacuated, some by boats and fire trucks. Water rose into about 50 homes. The torrents of water gouged out gaping holes or washouts in the streets of the town. Water rose 5 to 6 feet in some areas of town. One boy was injured when he was swept away by the flood waters. He was eventually pulled to safety by National Guardsmen. During the peak of the flood citizens were agitated by the high number of frogs that were reported to be everywhere.

										- SEPTEMBER 1990
		TIME			NO. PER	OF SONS	EST1 DAM	MATED AGE		SEL TEHNER 1770
PLACE	D A E	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	I N J DREED	PROPERTY	CROPA	CHARACTER OF STORM	
TEXAS, Western	ì									
Coke County 9 N Bronte 9 N Bronte 3 N Robert Lee	01 01 01	1615CST 1620CST 1645CST			0 0 0	5 0 0	3 4 2	2 2 2	Hail (1.75) Thunderstorm V Hail (1.75)	Vind (G61)
	A s Res dan rese As of 1	evere thund servoir in no n when the servoir and d the storm m Robert Lee	lerstorm bartheastern storm structorm structorm structorm structory rowned. Towed throught 1645 Capital Structory	rought gol Coke Cou k. All five he wind d igh Coke C	f ball inty. e wer amag Count	-size A gr e inju ed boo y, the	hail ar oup of red by at dock Sheri	nd 70 if five p the hacks and ff's Of	mph downburst wir beople was caught of il; two of the peopl small buildings arou fice reported golf b	nds to Oak Creek on the reservoir's e jumped into the und the reservoir. all-size hail north
Tom Green County San Angelo	01	1700CST			0	0	3	2	Thunderstorm V	
	Do	wnburst wir	ids uproot	ed a tree w	vhich	dama	iged a	pickup	truck in San Ange	elo at 1700 CST.
Hansford County 5 E Gruver	06	2055CST			0	0	3.	1	Thunderstorm V	Vind (G56)
1	Do Har	wnburst wii isford Coun	nds downe	ed 13 pow 's Office.	er po	oles b	etweer	Gruv	er and Spearman,	according to the
Midland County 6 SW Midland	09	1530CST			0	0	0	0	Thunderstorm V	Vind (G53)
	Dov Inte	wnburst wi ernational A	nds gusted irport. N	l to 61 n o damage	nph a result	at the ed.	Natio	onal V	Veather Service O	ffice at Midland
Dallam County										

Dallam County
5 NW Dalhart
8 NW Dalhart 1658CST 1723CST Hail (0.75) Hail (0.75)

The public reported dime-size hail covering the ground to a depth of 3 inches in southern Dallam County at 1658 CST. Dime-size hail fell again at 1723 CST, according to the public. No damage was reported.

Hartley County 10 WSW Dalhart 9 WSW Dalhart 1717CST Thunderstorm Wind 09 Ō 3 1720CST 0 Hail (1.00)

The public reported broken windows in a home, roof damage, and tree damage from hail and downburst winds in northern Hartley County.

Howard County 1 S Big Spring Big Spring Hail (0.75) Hail (0.75) 10 1315CST 10 1330CST

> The Howard County Sheriff's Office reported dime-size hail just south of Big Spring at 1315 CST. Fifteen minutes later, a volunteer fireman observed dime-size hail in Big Spring. No significant damage resulted.

Glasscock County
1 SW Garden City 10 1400CST 10 1415CST Garden City

> According to the public, half-dollar-size hail fell southwest of Garden City at 1400 CST. The public reported dime-size hail in Garden City at 1415 CST. No significant damage was observed.

										_ SEPTEMBER 1990
		TIME			NO. PER	OF SONS	ESTIM DAMA	ATED GE		JEF FEMBER 1990
PLACE	DATE	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLIMO	-27)DRWD	- LX311100X1	ORODO	CHARACTER OF STORM	
TEXAS, Western	ı Co	nt'd								_
Dawson County Lamesa 2 E Lamesa	10 10	1400CST 1425CST			0	0	0	0	Hail (0.75) Hail (1.00)	
	She	Skywarn sp eriff's Offic nage was n	e and the p	rted dimé- oublic obse	size rved	hail i quarte	n Lam er-size	esa at hail ju	1400 CST. The st east of Lamesa a	Dawson County at 1425 CST. No
Midland County 1 NE Midland	10	1440CST			0	0	2	2	Hail (1.75)	
		e public repulted.	orted golf	ball-size ha	il nor	theast	of Mi	dland a	at 1440 CST. No s	ignificant damage
Carson County 5 W Panhandle 10 SW Panhandle	10 10	1625CST 1636CST			0	0	0	0	Hail (1.00) Hail (1.00)	
·	The size	e Texas Dep e hail in sou	eartment of thwestern	Public Saf Carson Co	ety ar ounty	nd the betwe	Carsor en 162	n Coun 25 and	ty Sheriff's Office 1636 CST. No da	observed quarter- amage was noted.
Pecos County Fort Stockton	10	1700CST			0	0	2	1	Hail (1.75)	
	Go	lf ball-size	hail fell in	Fort Stock	kton a	at 170	0 CST	. No	significant damage	resulted.
Armstrong County 7 W Claude	10	1758CST			0	0	0	0	Hail (0.75)	
	The Co	e Armstron unty at 175	g County 8 CST. N	Sheriff's o damage	Office result	e repo ted.	orted d	ime-si	ze hail in northwe	estern Armstrong
Crosby County Crosbyton	10	1930CST			0	0	3	0	Thunderstorm V	Vind (G51)
	Do	wnburst wi	nds estima	ted at 60 n	nph d	lamag	ed the	roof o	f a business in Cro	osbyton.
Howard County 1 SW Big Spring	16	1640CST			0	0	0	0	Funnel Cloud	
	The	e public rep	orted a fu	nnel cloud	south	iwest	of Big	Spring	g at 1640 CST.	
Schleicher and Sutton Counties	17 17	0035CST 0500CST			0	0 0	2 5	2 2	Flash Flood Flood	
·	floo exp and	oding. Ma perienced th I businesses	ny second e worst of were dan	lary highw the floodinaged by the	ays i ng w he flo	n the hen th odwa	area v le Dry ters an	were c Devils d som	lley, resulting in f losed. Sonora, in s River overflowed e downtown street and 1100 CST.	Sutton County, I. Several homes
Winkler County Wink	18	1506CST			0	0	0	0	Thunderstorm V	Vind (G50)

Downburst winds gusted to 58 mph at the Winkler County Airport at 1506 CST. No damage resulted.

Dawson County Lamesa

18 1920CST 0 0 4 0 Flash Flood

Nearly 3 inches of rain fell in and near Lamesa in a 1 hour period. The resulting flash flood damaged several homes in Lamesa, according to the Lamesa Police Department.

SEPTEMBER 1990 NO. OF PERSONS ESTIMATED DAMAGE TIME LENGTH OF PATH WIDTH OF PATH LOCAL CHARACTER STANDARD STORM (MILES) (YARDS)

ROPHR PLACE URED Ē TEXAS, Western Cont'd El Paso County 20 SE El Paso 19 0230CST 0 6 Lightning Lightning struck the junior high school building in Clint at 0230 CST. The resulting fire destroyed the second story of the building with heavy smoke, heat, and water damage to the ground floor. Damage is estimated at \$1.5 million. **Hutchinson County** 19 1410CST 0 2 2 Flash Flood 2 NE Fritch Heavy rainfall from thunderstorms resulted in flash flooding near Lake Meredith. floodwaters, which were up to 3 feet deep, closed highways for approximately two hours. Jeff Davis County 5 NE Fort Davis 20 1620CST 0 0 2 2 Flash Flood Thunderstorms dumped up to 2 inches of rain in less than an hour north of Fort Davis. The resulting flash flood closed many secondary highways for up to four hours. **Howard County** Vincent 21 1210CST 2 2 Flash Flood The Big Spring Police Department reported floodwaters up to 2 feet deep over highways in northeastern Howard County. **Ector County** 21 1255CST 5 S Goldsmith 0.4 60 0 0 0 0 Tornado (F0) The public reported a small tornado south of Goldsmith at 1255 CST. The tornado remained over open country and no damage resulted.

Ector County Odessa 21 1444CST O 0 1 Flash Flood

Nearly 1 inch of rain fell in 30 minutes in Odessa, resulting in flash flooding across the city. Minor vehicle damage was reported, and a business reported roof damage from the floodwaters.

Tom Green County 21 1505CST 5 Grape Creek Flash Flood

> Heavy rains in northern Tom Green County resulted in flooding in Grape Creek. Floodwaters were up to 2 feet deep in businesses near U.S. Highway 87. Two motorists had to be rescued when their vehicle stalled in a flooded low-water crossing.

Jeff Davis County 21 1713CST 0 0 1 1 Flash Flood 10 N Fort Davis

> Recurrent thunderstorms resulted in flash flooding in northern Jeff Davis County. The floodwaters were 5 to 6 feet deep in some locations. Fortunately, motorists avoided the flooded areas and no significant damage resulted.

Pecos and Reeves Counties 2350CST-0230CST 2 2 Flash Flood 0 0

> Train-effect thunderstorms over Pecos and Reeves counties produced flash flooding which closed U.S. 67, 385, and 285 for over two hours.

<u></u>				I	T 110	05	FCTI	HATED	SEPTEMBER 19	90
		TIME			PER	SONS	DAM	MATED AGE		
DIACE	D	LOCAL STANDARD	LENGTH OF PATH	WIDTH OF PATH	Ĭ	Ņ	PRO	CR	CHARACTER	
. PLACE	A E	STANDARD	(MILES)	(YARDS)	KILLIE	Z J DRUD	PE	CROPS	OF STORM	
					D	E	PROPERTY			
L	Ļ			l	L	1		L		
TEXAS, Western	Co	nt'd								
Tom Green County Christoval	22	1318CST			0	0	3	2	Flash Flood	
			2.11.2		,	0	4	1 1 .	Flood	11
	resi	essive raint alted in floo	ding which	h produce	reen 1 min	or da	mage	in the	with runoff from recent days rainfa area.	И,
Floyd County 3 N Lockney	28	1305CST	1.1	70	0	0	0	0	Tornado (F0)	
	The torr	e Lockney F nado was ov	Fire Depart Per open co	ment repo ountry and	rted a no d	torna lamag	ado 3 i e was	miles n observ	orth of Lockney at 1305 CST. Ted.	he
Oldham County Vega	29	0100CST			0	0	3	1	Flash Flood	
, 0,2			ınderstorn	s produced					at 0100 CST. The Oldham Coun	ts.
	She	riff's Office	e reported	no signific	ant d	lamag	e in V	ega fro	om the flooding.	·y
Presidio and Brewste Counties										
Counties	21- 30		•		0	0	2	4	Flood	
	con	tinuous floo	oding of th	ne Rio Gra	ınde	from	Presid	io thro	nd northern Mexico caused near ough Big Bend National Park. To ad agricultural land just downstrea	he
Y PTD A YY										
UTAH										
Grand, Carbon, San Juan Counties	02	1500MST			0	0	2	0	Flash Flood	
	also	nties. A m	otorist wa: n SR 124	s almost w	ashec	i ott t	his his	hway!	Route 191 in Grand and San Ju- north of Monticello. Flooding w potter south of Moab had a total	as
Morgan County Morgan	04	1633MST			0	0	3	0	Flash Flood	
	Ove the	er 1.25 inch town of Mo	es of rain organ.	in a half-h	our c	aused	basen	nent flo	poding and other minor problems	in
Salt Lake County	25	1300MST	= ,		0	0	3	0	Hail (1.00)	
West Valley City Kearns	25 25	1310MST 1454MST			0	0	3 3 3	0	Hail (1.00) Hail (1.50)	
Salt Lake County		_								
West Valley City South Salt Lake	25 25	1450MST 1500MST			0	0	0	0	Funnel Cloud Funnel Cloud	
•	Two		innel cloud	ls were rep	orted	, prob	ably f	rom the	e same thunderstorm cell as it move	ed
	- 6									

Hail (1.50)

Summit County Park City

25 1515MST

										¬ SEPTEMBER	1990
		TIME			NO. PER	OF SONS	ESTIM DAMA	ATED GE			
PLACE	DATE	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	K-L-mD	OMOCLE	~	האסטיי	CHARACTER OF STORM		
UTAH Cont'd											
Salt Lake County Taylorsville	25	1540MST			0	0	3.	. 0	Hail (1.00)		•
	afte	series of ha emoon. So nage from t	ome garder	ns and trea	storn es we	ns dev ere sh	redded	l over but c	parts of northern overall, there was	Utah durin remarkably	g the little
Iron County 15 N Cedar City	28	1300MST	ı		0	0	0	0	Hail (1.50)	•	
Millard County 10 N Fillmore	28	1500MST	•	,	0	0	0	0	Hail (1.50)		
	A n gol	notorist trav f ball-size h	veling nort nail.	h along Int	erstat	e 15 o	during	the aft	ernoon encountere	I two episod	les of
VERMONT											
Windsor County Queechee Bennington County	02	1513EST			0	0	3	3	Thunderstrom V	Vinds	
Dorest	02	1530EST			0	0	2	2	Hail (1.00)		
	Thi	understorm	winds and	hail result	ed in	mino	r dam	age in	southern Vermont.		
VIRGINIA						•					
City of Fredericksburg	07	1430EST			0	0	3	0	Thunderstorm V	Vinds	
	Tre	es were do	wned throu	ighout the	city.	Abo	ut 6,00	00 cust	omers were withou	it power.	
Amelia County 4 N Amelia	07	1550EST			0	0	3	0	Thunderstorm V	Vinds	
	tree	es included.	oak trees s	ome 36 in	ches i	n diai	meter.	Wind	ich fell onto a hous s were estimated a ouse and another o	i /3 mph. /	wned About
Hanover County 18 NW Ashland	07	1600EST			0	0	0	0	Thunderstorm V	Vinds	
	Stro	ong winds i	aprooted se	everal large	e tree	s near	r Beave	er Dan	1.		
Essex County Tappahannock	07	1620EST			0	0	0	0	Thunderstrom V	Vinds	
	Tre	es were do	wned by h	igh winds.					•		
Prince George Count 10 E Hopewell	y 07	1651EST			0	0	0	0	Thunderstorm V	Vinds	
		nds estimate ee fell onto		oh blew sev	eral t	rees d	lown.	Two p	eople were trapped	in their car	when

Winds estimated up to 60 mph by sheriff's office personnel blew several trees down.

0

0

0

Thunderstorm Winds

0

Dinwiddie County McKenny

07 1700EST

SEPTEMBER 1990

		TIME			NO. PER	OF SONS	ESTI!	MATED AGE		SEPTEMBER .	.,,,
PLACE	D A I E	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLEO	משמכרת	PROPURTY	CEOTA	CHARACTER OF STORM		

	<u></u>		<u> </u>		l	L	Ÿ		
VIRGINIA Cont'	d								
Sussex County	07	1713EST			0	0	0	0	Thunderstrom Winds
	Tre	es were do	wned in th	e western j	part o	f the	county	.	
Surry County Cabin Point	07	1730EST			0	0	0	0	Thunderstrom Winds
	Tre	es were do	wned by h	igh winds	at Cal	bin Po	oint; a	lso in	the southeastern part of the county.
City of Virginia Beach			,						
4 N Chesapeake Beach	07	1747EST			0	0	0	0	Thunderstorm Winds
	Wir	nds gusted	to 55 knot	s (62 mph)	at th	e Sout	th Isla	nd of	the Chesapeake Bay Bridge Tunnel.
Southampton County Courtland	07	1750EST			0	0	0	0	Hail (1.00)
Isle of Wight County Walters	07	1800EST			0	0	0	0	Thunderstrom Winds
	Tre	es were do	wned by s	trong winds	s.				
City of Bristol	07	2030EST			0	0	3	0	Lightning
	Lig \$10	htning struc ,000.	k a small l	herd of catt	le, ki	lling 1	1 anin	nals. I	Estimated value of the lost cattle was
City of Virginia Beach									
Back Bay	14	1505EST			0	0	0	0	Waterspouts
	Two Vir	o short-live ginia Beach	d waterspo resort.	outs were o	bserv	ed in	the B	ack Ba	y area, about 15 miles south of the
Fairfax County 1 N River Oaks	16	1635EST			0	0	0	0	Hail (1.75)
City of Alexandria	16	1710EST			0	0	0	0	Thunderstorm Winds Hail (0.75)

Winds were estimated at up to 60 mph, also 0.75-inch hail covered the ground.

WASHINGTON

WAZ010 Southeastern Washington

07 1545PST 0 0 0 0 Dust Storm

Winds up to 35 mph caused blowing dust in Garfield and Whitman counties. Visibilities, reduced to near-zero, were responsible for a 14-vehicle accident 8 miles south of the town of Dusty on State Highway 127. Five people were injured, two requiring hospitalization. State Highways 26 and 195 were also temporarily closed. Activities at a local fair in Colfax were delayed a few hours until the dust storm had subsided.

		TIME			NO. PER	OF SONS	ESTII DAM/	AATED AGE	,	SEPTEMBER	,,,
PLACE	DATE	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLE	- SUND	ት አመታወአተ	CECOLO	CHARACTER OF STORM		

WEST VIRGINIA

D ... - 1-. C ...- 4-

Wellsburg	06	1630EST	0	0	0	0	Thunderstorm Winds
	Sev	eral trees were blown down.					
Preston County Masontown Reedsville Kingwood Marion County	06	1835EST	0	0	0	0	Hail (0.75)
Fairmont-Colfax	06	1850EST	0	0	?	0	Thunderstorm Winds
Taylor County Grafton	06	1850EST	0	0	3	0	Thunderstorm Winds

Several trees and large limbs were blown down in southern Marion County and in the Boothsville-Grafton region of Taylor County. One car was damaged in Taylor County.

Brooke County Follansbee-1 S Follansbee

0400EST Flash Flood 6

Severe flash flooding occurred along Allegheny and Cross Creeks. Five- to six-feet of water was on some streets. Most significant damage was along Main, Penn, and Allegheny Streets, plus Virginia Ave. Sixty to 70 people were evacuated. Several vehicles floated down streets. Forty vehicles were ruined, including an ambulance for the Brooke County Emergency Medical services. The sophisticated diagnostic and treatment equipment inside the ambulance was also destroyed. Approximately 50 homes, 15 businesses, and one church were damaged. One private bridge along Cross Creek was destroyed. Damage was estimated around \$1 million.

Brooke County Colliers

07 0030EST-0400EST 5 0 Flash Flood Mudslide

Harmon Creek flooded and destroyed three low-cost homes while damaging six others. A hillside above a residential home gave way, sending a tree through a second floor bedroom and shoving mud through its foundation. Three residents of the home narrowly escaped. The house was a total loss. Estimated damage was \$100,000 to dwellings and \$100,000 for slide clean-up and to stabilize the hillside.

Hancock County Weirton

07 0030EST-0100EST 0 0 4 0 Thunderstorm Winds

Numerous windows were broken, ventilator vents damaged, and fencing downed at the sewage treatment plant. Five and a half inches (5.56) of rain were measured at the plant in the 24 hours ending at 0900 EST. Power lines and falling trees occurred elsewhere in the city. Estimated damage was \$6,000.

Boone County Ramage Mingo County Gilbert	07 07	1650EST 1815EST	0	0	0 0	0 0	Hail (1.00) Thunderstorm Winds
Logan County 4 NE Logan	07	1815EST	0	0	0	0	Hail (0.75) Thunderstorm Winds

Large trees were blown down around Gilbert and on Blair Mountain of Logan County.

		TIME			NO. PEŘ:	OF SONS	EST IN	MATED AGE		SEPTEMBER 1990
PLACE	DAO-E	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	CM20CL2-	~~ ~~~~	CEOPN	CHARACTER OF STORM	

WEST VIRGINIA Cont'd

McDowell County Welch, Havaco, and Gary

09

Thunderstorm Winds

Numerous trees were downed. Several homes were hit by broken tree limbs.

Raleigh County 5 NE Beckley

11 1515EST

0

Hail (0.75)

Three-quarter-inch-size hail fell at Grandview State Park.

Brooke County Wellsburg Ohio County Wheeling

14 1855EST

0

0

0

Thunderstorm Winds

1900EST

0 0 0

Thunderstorm Winds

Several trees were blown down in Wellsburg and Wheeling.

60

Pleasants County St. Marys-Belmont 14 Tyler County

1915EST

0

Thunderstorm Winds

Bens Run 1930EST

0 0 Thunderstorm Winds

Trees and large limbs were blown down in these two mid-Ohio River counties. A recycling center at Bens Run received about \$2,000 damage from falling trees.

3

Kanawha County Blue Creek

2000EST-

2015EST

0.2

0 0

3

Tornado (F0)

Damage occurred mainly to trees, with a few awnings ripped off houses along Route 119. A mobile home also sustained damage from a falling tree.

Marion County Fairmont

14 2055EST

0

0

Thunderstorm Winds

Several trees were blown down.

Harrison County Clarksburg

14 2059EST

0

0

Thunderstorm Winds

Several trees and power lines were blown down.

Marion County 3 NE Fairmont

14 2100EST-

2130EST

0.75

50

0 O

Tornado (F1)

The tornado occurred along County Route 78 in the Little Creek region. Wind speeds were estimated at 80 to 100 mph. The tornado resulted from a bow in a squall line, preceding a strong cold front. The tornado touched down just under a crest of a hill and moved down into a small valley and then continued moving to the top of the next hill. At this point it made a sharp curve to the left and traveled another one-eighth mile back down the hill. A second damage path developed at the top of the hill where the main path curved left. This second path traveled straight ahead about 100 yards before hooking to the left at a farmhouse. Its width was smaller, about 15 to 25 yards. Damage was major to the farmhouse. A chimney was blown off its roof. The back and left rear side walls were bulged outward with the aluminum siding blown off. Some of the original three-quarter-inch wood siding was split apart. Four other dwellings sustained minor damage. A camping trailer and a slide-in camper for a pickup truck were destroyed. Two trucks were damaged. Hundreds of trees were uprooted, broken off, twisted, and scattered along the path. Ten outbuildings were damaged, including one barn. Damage was estimated at \$50,000.

TIME

NO. OF PERSONS

ESTIMATED DAMAGE

SEPTEMBER 1990

		TAPIL			FLK	30113	UAN	nuL .	
PLACE	DA	LOCAL	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	OMMCCA	₽.KOD.EK)>	CGODN	CHARACTER OF STORM
WEST VIRGINIA	A C	ont'd							
Taylor County 1 N Grafton	14	2105EST			0	0	0	0	Thunderstorm Winds
	Ma	ný trees wei	re down a	long Route	310				
Monongalia County 6 S Morgantown	14	2130EST			0	0	2	0	Thunderstorm Winds
	Stra nea wid bac	aight-line wi r Gum Sprii le and 100- kstop which	ind damag ngs. An e to 120-y was mov	e occurred estimated ards long. ed 15 yard	at th 100 tr No Is.	e Mou ees woodhe	antaine ere up r dam	eer Boy prooted age oc	Scout Camp located off Route 119 or snapped off in an area 35 yards curred, other than a wire baseball
Preston County									
Aurora, Fellowsville	14	2135EST			0	0	0	0	Thunderstorm Winds
	Sev hig	eral trees w h school foo	ere blown otball gam	down. T es through	he th	unders ne stat	storms e.	on the	e 14th interrupted or canceled many
Webster County Webster Springs	16	1600EST			0	0	0	0	Hail (1.00)
WISCONSIN									
Pierce County 1 S Black River Falls Beldenville Ellsworth Plum City Waushara County	09 09 09 09	1810CDT 1830CDT 1830CDT 1928CDT			0 0 0	0 0 0	? 4 4 4	?	Hail (1.75) Hail (2.75) Hail (1.75) Thunderstorm Winds
Waushara County 3 S Plainfield Buffalo County Trempealeau County Nelson to Waumandee to 2.5 SSE Arcadia	09	1930CDT 2000CDT-			0	0	?	?	Hail (0.75)
Green Lake County		2112CDT	30	3.0	0	1	6	6	Tomado (F1)
Berlin Clark County	09	2030CDT			0	0	?	?	Hail (0.75)
Greenwood Neillsville Neillsville 10 S Neillsville	09 09 09 09	2111CDT 2135CDT 2135CDT 2205CDT			0 0 0	0 0 0 0	? 5 4 4	? 4 ? ?	Hail (1.00) Hail (2.75) Thunderstorm Winds Thunderstorm Winds
Trempealeau County Ettrick	09	2130CDT			0	0	?	?	Hail (1.50)
La Crosse County Holmen	09	2145CDT			0	0	?	?	Hail (0.75)
Adams County 2 N Friendship	09	2310CDT			0	0	?	?	Hail (0.75)
Milwaukee County Milwaukee	10	0247CDT			0	0	?	?	Thunderstorm Winds (G55)

Severe thunderstorms hit western and central Wisconsin causing widespread damage and dropping hail up to baseball size. A tornado touched down in the town of Nelson (Buffalo County) caused one injury and moved southeast. One million dollars in damage occurred in the Nelson area as 95% of the town was affected. Thirty homes and 31 mobile homes were

SEPTEMBER 1990

		TIME			NO. PER	OF SONS	ESTII DAM	MATED AGE		SEPIL
PLACE	D A T E	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KI LLED	חששכניבים	₽₩0₽₩ ₩	CROPA	CHARACTER OF STORM	

WISCONSIN Cont'd

destroyed, 24 homes and businesses received major damage. The tornado skipped along a 30-mile-path causing barn damage near Waumandee. It then entered west-central Trempealeau County and produced \$600,000 damage to sheds and agriculture buildings south of Arcadia before lifting up 2.5 miles south-southeast of Arcadia. Three million dollars in crop damage occurred to 1,000 acres of soybeans, 7,000 acres of corn, and 11,000 acres of hay. Baseball-size hail damaged crops, buildings, and over 100 cars around the Beldenville (Pierce County) and Neillsville (Clark County) areas.

Barron County									
6 W Rice Láke	11	1745CDT	1.5	100	0	0	5	5	Tornado (F2)
1 E Cumberland	11	1750CDT	0.5	50	Ō	0	5	?	Tornado (F1)
Rice Lake	11	1758CDT			Ō	0	6	5	Hail (2.75)
Rice Lake	11	1758CDT			0	0	6 5	?	Thunderstorm Winds
Rice Lake	11	1845CDT			0	0	4	4	Hail (1.00)
Canton	11	1910CDT	3.0	2500	0	0	6	6	Tornado (F2)
Haugen	11	2000CDT	0.5	50	0	0	4	4	Tornado (F1)
Rice Lake	11	2000CDT			0	0	4	4	Hail (0.75)
Rusk County									
10 NW Ladysmith	11	1947CDT			0	0	?	?	Hail (0.75)
Washburn County							_		
Spooner	11	2035CDT			0	0	?	?	Hail (1.00) Hail (2.75)
Trego	11	2117CDT			0	0	?	?	Hail (2.75)
Sawyer County									
Stone Lake	11	2128CDT			0	0	?	?	Hail (0.75)

Clusters of severe thunderstorms produced hail up to baseball-size over portions of northwestern Wisconsin and generated four tornadoes in Barron County. A tornado touched down 6 miles west of Rice Lake and destroyed a farm and mobile home with damages over \$300,000. A second tornado caused trailer and tree damage just east of Cumberland. The third and most destructive tornado hit Canton causing almost \$1 million in damage to 28 homes and many surrounding agriculture buildings. A fourth small tornado was noted near Haugen. In the city of Rice Lake baseball-size hail damaged over 300 cars on automobile dealer's lots alone. Strong winds downed trees and caused minor structural damage. Across Barron County over \$2 million in crop damage was sustained to 21,000 acres of corn and 500 acres of snap beans.

Doug	las	County
I at	a N	lahagaman

12 2135CDT

0 0 ? ? Hail (1.75)

Hail up to golf ball-size fell from a severe thunderstorm at Lake Nebagamon.

Bayfield County Iron River	13	2035CDT	0	0	?	?	Thunderstorm Winds
Sawyer County Round Lake	13	2100CDT	0	0	4	?	Thunderstorm Winds
Ashland County Glidden	13	2130CDT	0	0	?	?	Thunderstorm Winds
Price County Park Falls	13	2155CDT	0	0	?	?	Thunderstorm Winds
Vilas County Lac Du Flambeau St. Germain	13 13	2215CDT 2225CDT	0	0	4 4	?	Thunderstorm Winds Thunderstorm Winds
Oneida County Minocqua	13	2220CDT	0	0	6	?	Thunderstorm Winds
Chippewa County 1 W Holcombe	13	2300CDT	0	0	4	?	Thunderstorm Winds
Outagamie County Black Creek	14	0300CDT	0	0	4	?	Thunderstorm Winds
Sheboygan County Sheboygan	14	0520CDT	0	0	3	?	Thunderstorm Winds

		TIME			NO. PER	OF SONS	EST IM	ATED		SEPTEMBER 1990
PLACE	DAT E	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	חששברביי	P ROD WALL	CROPA	CHARACTER OF STORM	

WISCONSIN Cont'd

Intense, severe thunderstorm winds hit portions of northeastern Wisconsin. A 5-mile-path of destruction took place from Lac Du Flambeau (Vilas County) to Minocqua (Oneida County) to St. Germain. Minocqua was hardest hit with over \$2 million in damage to homes, businesses, hundreds of trees, and power lines. The high school roof was ripped off, boats tipped over, and an ice cream stand flattened. Strong severe thunderstorm winds knocked down 62 trees in the Round Lake area (Sawyer County) and leveled a barn near Holcombe (Chippewa County).

•	IXOu	ind Lake area (Sawyer County)	and i	evered	a bai	n near	Holcombe (Chippewa County).
Outagamie County Hortonville Freedom	15 15	1830CDT 1900CDT	0	0	?	?	Hail (0.75) Thunderstorm Winds
Fond Du Lac County Campbellsport	15	1915CDT	0	0	?	?	Thunderstorm Winds
Manitowoc County Branch	15	1955CDT	0	0	?	?	Hail (1.75)
	win	ttered severe thunderstorms drop ds which damaged residences a ver lines at Campbellsport (Fon	t Free	dom (Outaga	amie C	ize and produced gusty thunderstorm County) and knocked down trees and
Milwaukee County 3 E Milwaukee	16	1200CDT	0	0	0	0	Waterspout
	Αw	vaterspout was sighted just east	of the	e Milv	vaukee	Coas	•
WYOMING							
Laramie County 27 NE Cheyenne	02	1405MST- 1410MST	0	0	0	0	Hail (0.75)
	A tl	hunderstorm produced dime-siz 0 MST.	ze hail	abut	27 mi	les no	rtheast of Cheyenne around 1405 to
Laramie County Near Albin	02	2000MST	0	0	0	0	Thunderstorm Winds (G50)
	Thu	inderstorm winds of 50 to 60 n	nph bl	ew thi	rough	the Al	bin area around 2000 MST.
Albany County Near Laramie	03	1630MST	0	0	0	0	Hail (0.75)
	Thu MS	inderstorms produced hail up to T.	0.75	inch	and he	avy ra	in in the Laramie area around 1630
Albany County 30 NNE Laramie	03	1830MST	0	0	0	0	Hail (1.50)
		inderstorms brought hail up to 10 MST.	1.50 ir	iches a	and he	avy ra	in to the Sybille Canyon area around
Laramie County Near Pine Bluffs	06	1600MST- 1620MST	0	. 0	0	0	Thunderstorm Winds (G50)

A band of thunderstorms moving through far southeastern Laramie County produced winds to 60 mph from Pine Bluffs to about 15 miles northwest of Pine Bluffs between 1600 and 1620 MST.

SEPTEMBER 1990

		TIME			NO. PER	OF SONS	EST IN	MATED AGE		SEPTEMBER	1770
PLACE	DATE	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	בשטפשס	₩	CBOTN .	CHARACTER OF STORM		

			(MILES)	(YARDS)	Ď	D E	R Y	S		
WYOMING Conf	t 'd			,						
Laramie County Near Cheyenne	19	1210MST			0	0	0	0	Funnel Cloud	
	Αb	orief funnel	cloud was	sighted ju	ist we	est of	Cheye	nne ar	ound 1210 MST.	
Sheridan County 10 NW Sheridan	19	1340MST 1345MST			0	0	0	0	Funnel Cloud	
	A b	rief funnel	cloud was	visible abo	out 10	mile	s north	west o	of Sheridan from 134	10 to 1345 MST
Niobrara County 10 S Lusk	19	1632MST 1642MST		10	0	0	0	0	Tomado (F0)	
	10 :	veak tornade miles south open country	of Lusk b	rved touch etween 163	ing d 32 and	own t J 1642	wice n 2 MST	ear the No	e Niobrara/Goshen C damage occurred as	ounty line abou it touched down
WYZ001-009 Northwest Mountains Wind River	5									
Mountains	20	0400MST 1600MST			0	0	0	0	Heavy Snow	
	An 9,0	early snow 00 feet in th	fall of 4 t he Wind R	o 8 inches liver Mour	, with	h up and t	to a for	oot ove othern	er the higher peaks, part of Absaroka Ra	occurred above inge.
ALASKA, Southe	ern									
Cook Inlet	12	0400ADT	•		0	0	4	0	High Winds	
	Gul 3,2	lf of Alaska 00 users a	coast pro	duced higl chorage.	h win Stroi	ds wh igest	nich kr report	nocked ed wi	ombined with high plover trees and cut and gusts were 69 old Muldoon Road.	ressure over the electricity up to mph on Uppe
Cook Inlet										
Central Gulf Coast	19 20	0000ADT			0	0	0	0	High Winds Flooding	
	win low Riv	ds hit the up also broug	pper hillsio ht rain wh	de area of a nich caused	Ancho I mino	orage or floo	with goding	usts re in the	d Cook Inlet then we ported as high as 84 Seward area where h and 20th, above the	mph. The same the Resurrection

Aleutians 21 1900ADT

0 0 0 0 High Winds

An intense 967 mb low, ex-Typhoon "Flo", moved eastward just south of the Aleutians. Amchitka reported northeast winds 40 mph with gusts to 55 mph on the evening of the 21st. Adak reported northeast winds to 43 mph on the afternoon of the 22nd.

SEPTEMBER 1990 NO. OF PERSONS ESTIMATED DAMAGE TIME LENGTH OF PATH WIDTH OF PATH LOCAL CROPS CHARACTER OF STORM **PLACE** STANDARD (MILES) È (YARDS) ALASKA, Southern Cont'd Kodiak Island Central Gulf Coast Pribilof Islands 1300ADT High Winds A strong 972 mb low moved northeastward and stalled near Cold Bay with a strong occluded front moving northeastward across Kodiak Island then onshore on the northern Gulf of Alaska coast. Sitkinak reported northeast winds gusting to 75 mph and Kodiak 40 mph sustained with gusts to 60 mph on the night of the 26th. Middleton Island had east winds to 63 mph and nearby ships reported 60 to 80 knots on the morning of the 27th. Saint Paul in the Pribilofs reported north winds to 40 mph with gusts as high as 54 mph on the 26th. ALASKA, Southeastern All Southeastern N/A Fall Extratropical Alaska 1000 0 Cyclone Damage during this event was limited to tree falls and power outages. Several residences had significant damage caused by tree falls. This type of storm is typical for southeastern Alaska during this season. Maximum sustained wind was 60 mph. Maximum gusts were 75 mph. HAWAII None reported. **PACIFIC** None reported. **PUERTO RICO** Utuado 06 Afternoon 5 0 Flash Flood Several Utuado families were relocated to shelters as their houses were threatened by landslides

VIRGIN ISLANDS

None reported.

from heavy showers. No severe flooding nor fatalities were reported.

SEPTEMBER 1990

		TIME			NO. PER	OF SONS	EST!!	MATED AGE	
PLACE	D A T E	LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	סשאט ביביו	4-120110020	CROPN	CHARACTER OF STORM

CORRECTIONS

JANUARY 1990

NEW YORK, Eastern - Page 46 - Delete

Area Wide

29 AM-30 AM

3* 26 0 0 Snow

The biggest snow storm in two and one-half years hit eastern New York. Hardest hit were Essex, Clinton, and northern Warren Counties. Largest snow fall recorded was in the town of Minerva, Essex County. In Essex County, a school bus slid on icy roads resulting in 15 minor injuries. In Saratoga County, an elderly male fell in a snow bank. He was discovered a few hours later and treated for hypothermia. Near Pattersonville, Montgomery County, a 38-year-old female was killed in a car accident which police said was caused by the snow storm. On Oneida Lake five persons, who were ice fishing, became lost during a blinding snow storm. Four people have been found. A 40-year-old male has not been found and is presumed dead. In Caanan, Columbia County, police attributed a fatal accident to snow-covered roads and stated no charges would be filed. F-38-V; M-61-V; and *M-40-O (presumed dead)

Page 46 - Add

Area Wide

29 AM-30 AM

2 26 0 0 Snow

The biggest snow storm in two and one-half years hit eastern New York. Hardest hit were Essex, Clinton, and northern Warren counties. The largest snow fall recorded was in the town of Minerva in Essex County. In Essex County, a school bus slid on icy roads resulting in 15 minor injuries. In Saratoga County, an elderly male fell in a snow bank. He was discovered a few hours later and treated for hypothermia. Near Pattersonville in Montgomery County, a 38-year-old female was killed in a car accident which police said was caused by the snow storm. On Oneida Lake five persons, who were ice fishing, became lost during a blinding snow storm. All were found safe after the storm ended as they took refuge in an ice shanty. In Caanan in Columbia County, police attributed a fatal accident to snow-covered roads and stated no charges would be filed. (F38V, M61V)

VERMONT - Page 55 - Delete

Statewide

29 PM-30 AM

10 6 ? Snow

A fatal plane crash occurred at the Burlington International Airport during a heavy snow storm. The cargo plane crashed about one minute into its flight. Time of impact was 2103 EST. A fatal car accident occurred in Milton. Police attributed the accident to weather-related causes. M-02-V; F-21-V; M-31-V (aircraft); and M-Unk-V (aircraft)

Page 55 - Add

Statewide

29 PM-30 AM

2 10 6 0 Snow

A fatal car accident occurred in Milton. Police attributed the accident to weather-related causes. (M02V, F21V)

PLACE

TIME

D LOCAL LENGTH WIDTH OF DERSONS DAMAGE

PATH PATH L J O O OF DESTIMATED

OF DERSONS DAMAGE

CHARACTER
OF DESTIMATED

OF DESTIMAT

JULY 1990 - Page 4

Outstanding Storms of the Month - July 1990 confirmed tornadoes.

Number of F0 should be 88 and not 86.
Total should be 106 and not 104.

AUGUST 1990 - Page 4

Outstanding Storms of the Month - August 1990 confirmed tornadoes.

Number of F0 should be 43 and not 41.
Total should be 59 and not 57.

STORM SUMMARY

CORRECTIONS

JANUARY 1990

NEW YORK - Page 65

Heavy Snowstorms and Blizzards - Deaths should read 3 and not 4.

VERMONT - Page 65

Heavy Snowstorms and Blizzards - Deaths should read 2 and not 4.

TYPE . A A A L I Z A A D A A A A A A	ARKANSAS	CALIFORNIA	00708400		MXXX	FLORIDA	G⊞O⊄G⊢∢	OHADI	ILLINOIS	INDIANA	I OU A	KANSAS	KENTUCKY	LOUISIANA	MAINE	MARYLAND & DC	MASSACHUSETHS	MICHIGAN	MINNESOTA	MISSISSIPPI	MISSOURI	MONTANA	NEBRASKA	NE>4D4	HAMPHENDE REPE
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HAIL Deaths 0 Injuries 0 Property Damage 5 Crop Damage 4 THINDEPSTORM		00	0040			0011			00mm	003?	0045	0040	0004		00?0				005?		0004		0000		
THUNDERSTORM WINDS Deaths 0 0 Injuries 0 0 Property Damage 3 6 Crop Damage ? 0	0000			0 0 ? 0		0031	0054		0050	004?	0044	0040	0050	0050	0020	0030		1 465	005?	0040	0000		0050	1 00	
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TORNADOES	0		-		<u> </u>	Ť	<u> </u>	0	_				Ť	_		<u> </u>		0				#	0	0		0	-
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ALL OTHERS																											
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STORM DAMAGE CATAGORIES

REFERENCE NOTES

2 3 4 5 6 7 8	Less than \$50 \$50 to \$500 \$500 to \$5,000 \$5,000 to \$50,000 \$50,000 to \$500,000 \$500,000 to \$5 Million \$5 Million to \$50 Million \$50 Million to \$500 Million \$500 Million to \$500 Million	0/Blank * ** @ # # # o/c	None reported. Miles instead of yards. Yards instead of miles. Includes heavy sleet storm. Freezing drizzle and freezing rain, commonly known as glaze. Report incomplete. Report not received. Indicates Crop Damage amount is included in the value given for property damage.
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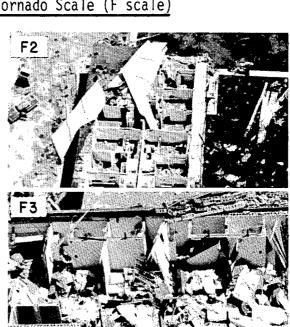
When reports are not received or are incomplete, the Storm Summary National Death and Injury totals may also be incomplete.

Definition of Fujita Tornado Scale (F scale)

- (FO) Gale tornado (40-72 mph): Light damage Some damage to chimneys; break branches off trees; push over shallow-rooted trees; damage sign boards.
- (F1) Moderate tornado (73-112 mph): Moderate damage The lower limit (73 mph) is the beginning of hurricane wind speed; peel surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off the roads.
- (F2) Significant tornado (113-157 mph): Considerable damage Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light-object missiles generated.
- (F3) Severe tornado (158-206 mph): Severe damage Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off ground and thrown.
- (F4) Devastating tornado (207-260 mph): Devastating damage Well-constructed houses leveled; structure with weak foundation blown off some distance; cars thrown and large missiles generated.
- (F5) Incredible tornado (261-318 mph): Incredible damage Strong frame houses lifted off foundations and carried considerable distance to disintegrate; automobile-sized missiles fly through the air in excess of 100 m; trees debarked; incredible phenomena will occur.
- (F6-F12) (319 mph to Mach 1, the speed of sound): The maximum wind speeds of tornadoes are not expected to reach the F6 wind speeds.

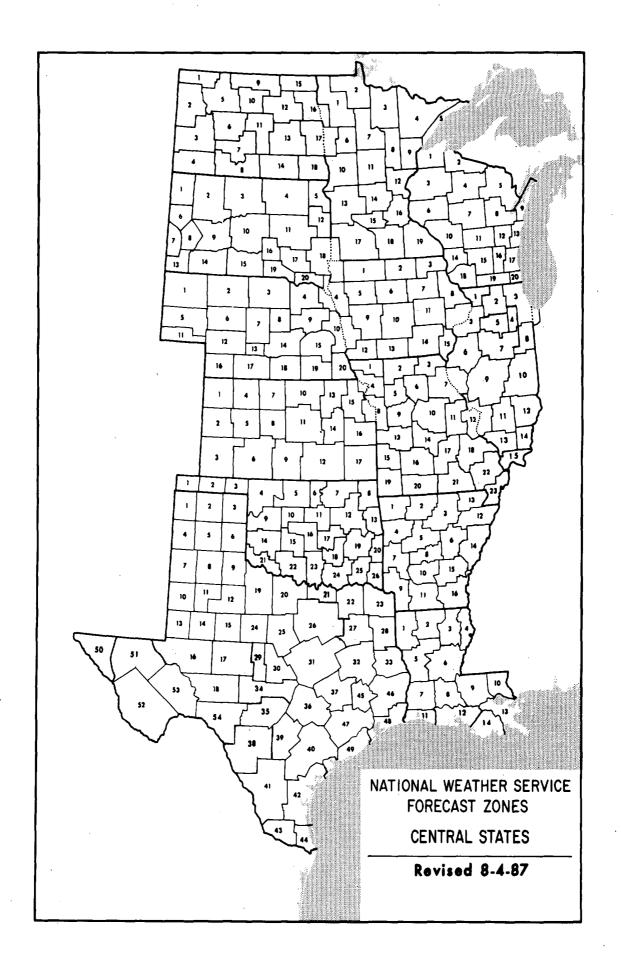
(F0+F1) Weak Tornado (F2+F3) Strong Tornado (F4+F5) Violent Tornado

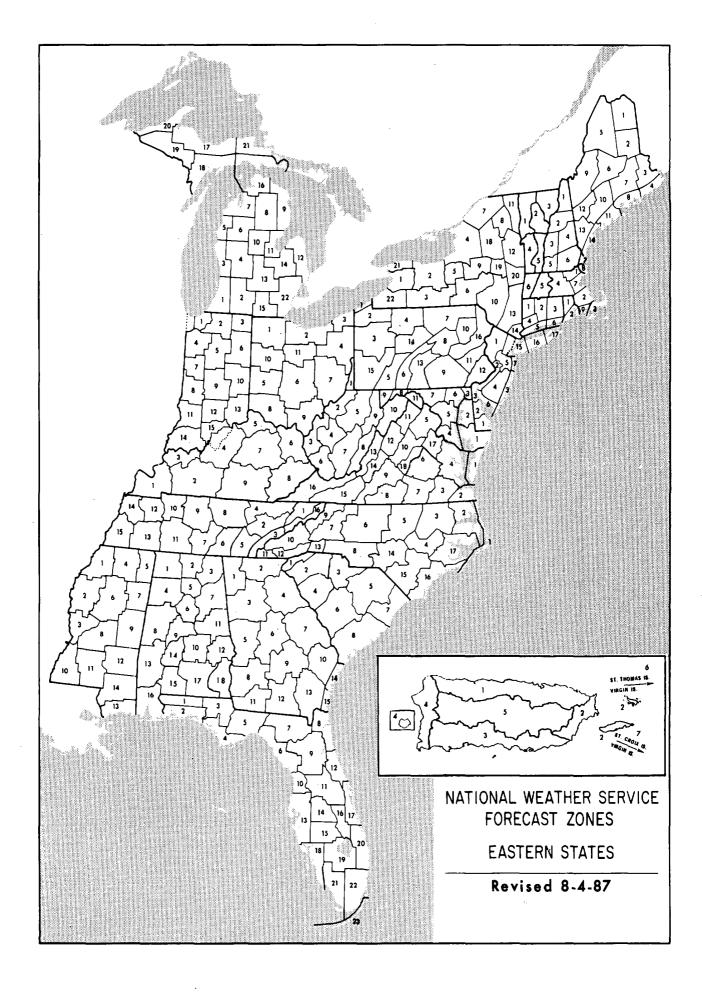
From J. Atmos. Sci., August 1981, p. 1517-1519











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STORM DATA

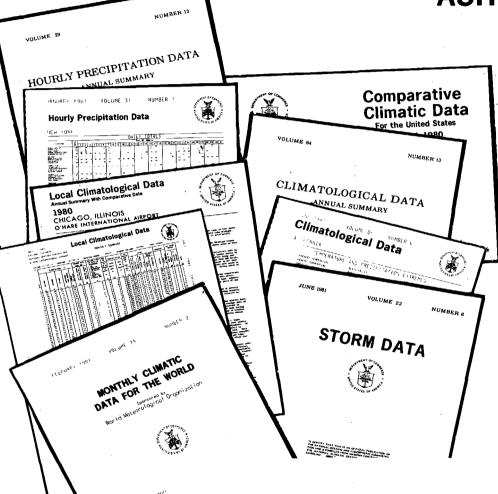
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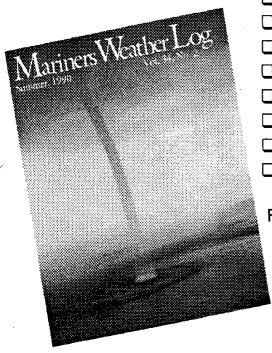


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